

# MANUFACTURERS RECORD

A Weekly Newspaper Devoted to the Industrial, Financial, Railroad,  
Mining, Contracting, Engineering, Building, and General  
Business Interests of the South and Southwest

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## *In This Issue:*

Growing Tendency Throughout South Toward  
Increased Savings Bank Deposits.

"He Led Us in the Path of Duty" Would Be  
Better than "He Kept Us Out of War."

Abounding Prosperity from High-priced Cotton  
—Over a Million Dollars Paid to Farmers  
in One Georgia County in Forty Days.

Plans to Establish Iron and Steel Industry at  
Texas City, Texas.

BALTIMORE, OCTOBER 19, 1916



## First Aids

TO THE

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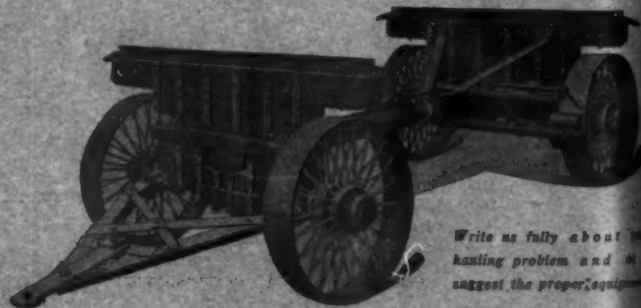
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# MANUFACTURERS RECORD

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER

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## GEORGIA COTTON FARMERS' GREAT PROSPERITY.

AT 34½ cents a pound—\$171.25 a bale of 500 pounds for lint alone—it is hardly to be wondered at that the sea island cotton farmers around Valdosta, Ga., are fairly rolling in wealth, as detailed in a letter from Rev. Alex W. Bealer, published in our news columns this week.

In the last 40 days, he writes, the farmers in that section have received \$1,150,000 for their cotton, which has brought on a regular boom in all lines of business and put more money into circulation than at any time before in the last 20 years. Everybody is prosperous, and negro tenants and all are settling old debts and paying cash for new supplies in such swarms as to almost overwhelm the storekeepers. The six banks of Valdosta, a city of 15,000 people, have deposits now of about \$5,000,000.

While their money "goes to their heads" in some instances, as related in the story, and foolish extravagances in purchases are made by some whites as well as negroes, emphasis is laid on the fact that none of it is squandered for whiskey. Lowndes county went "dry" some time ago, in recognition of the wastefulness and injury to the people which the saloon caused, and whereas on pay days and in marketing seasons heretofore the saloons would do a flourishing business, even if the stores were left to carry over accounts to another year, now old scores are being settled up and money that is left goes for comforts and necessities or is deposited in the banks.

Since the Rev. Mr. Bealer's letter was written the price of sea island cotton has been quoted in press dispatches at 40 cents a pound. The MANUFACTURERS RECORD sent to Mr. Bealer a telegram of inquiry, to which the reply was received: "Price of sea island cotton at one time reached 40½ cents here. Some expect even more to be offered."

This is at the rate of more than \$200 a bale for the lint alone. These prices certainly do mean flush times for cotton farmers and prosperity for the entire section.

THE Kaiser is still praying to heaven for "an honorable peace." If heaven weren't so far away from Germany, he probably would send a Zeppelin with an ultimatum.—Philadelphia Bulletin.

Between the two is the impassable gulf across which even Zeppelins cannot fly.

## "He Led Us in the Path of Duty" Would Be Better Than "He Kept Us Out of War."

EVEN if it had been true and there had been no attack on Vera Cruz and no invasion of Mexico, the slogan "He kept us out of war" would have been one of the saddest reflections upon the honor and integrity of the American people that it is possible to imagine. Had it been changed to "He led us in the path of duty," and had that been true, this would have been a motto worthy of the American people.

The attempt to secure public favor and win votes merely because "He kept us out of war" is not to the credit of anyone. We cannot believe that Mr. Wilson himself can possibly favor such a slogan, for to "keep us out of war" might mean to keep us out of honor; to "keep us out of war" might mean to lead us in the path of dishonor; to "keep us out of war" might mean to teach us that ease and prosperity and personal comfort are to be desired before duty.

It was Robert E. Lee, the kindest man of all the ages, who said:

"Duty is the noblest word in the English language."

Any President, or any other man, whose public work led the American people to think of duty first and of comfort or prosperity secondly would be ennobling the nation and lifting its people to a higher plane of life, but any effort to win public favor merely on the plea "He kept us out of war" puts aside all sense of duty and all sense of responsibility to do that which is right regardless of consequences.

No one who knows anything about war can look upon it without horror. No one of intelligence would for a moment belittle or minimize the unspeakable sorrow and suffering and agonies of war, but no one of a high sense of honor and duty would put freedom from war above duty of the individual or the nation.

A man without honor who saw his neighbor being murdered without lifting a hand in protest might save his body from physical suffering and boast that he had kept out of the contest, but no man with a true sense of honor when he saw murderers waylaying his neighbor and his family would for a moment consider his own personal safety. He would forever feel disgraced in his own eyes if he sought personal comfort in preference to duty to others. It is a lamentable fact, however, that this spirit of courage which should prevail in the individual and in the nation has been sadly lessened by the teaching of late years in the press, in the pulpit and in politics, that he "saved us from war" without any effort being made to show that peace, if dishonorable, is worse than war, with all its horrors.

The MANUFACTURERS RECORD does not undertake to say that our peace and prosperity are without honor. It does not for a moment undertake to say

that we should have engaged in war, but it does say, with all the emphasis at its command, that the slogan, "He kept us out of war," standing by itself, is a reflection upon the honor and courage and sense of duty of the American people. It is unworthy of those who uphold President Wilson, and we cannot for a moment believe that Mr. Wilson is himself a party to that slogan, or that he endorses it. It is true it may catch the votes of some unthinking people who prefer peace and prosperity to honor and duty. It is true that it may meet the favor of those who would prefer to save their own body from injury rather than attempt to rescue a man or a woman who was being attacked by highwaymen, but it is nothing of which to boast. Its wide acceptance could only indicate a lowering of the moral courage and stamina of those who accept the teaching as one to be praised.

The spirit that boasts he "kept us out of war" was not the spirit that inspired David Livingston to give his life for Africa; it was not the spirit that sent Adoniram Judson to endure all the persecutions of Burma; it is not the spirit that sends men and women out to far corners of the earth to seek to save the lost; it is not the spirit of service to mankind which found its supremest expression on Calvary.

We can appreciate President Wilson's desire to save this nation from the horrors of war, which seem to have grown more barbarous as civilization has advanced, and we give him the fullest measure of credit for this worthy ambition, but we wish that he would speak the word that would forever banish from our people the fetish, "He kept us from war," as unworthy of a nation that should prefer service to humanity to its own comfort and prosperity. He who spake as never man spake said:

"And he said unto them, Take heed, and beware of covetousness; for a man's life consisteth not in the abundance of the things which he possesseth.

"And he spake a parable unto them, saying, The ground of a certain rich man brought forth plentifully:

"And he thought within himself, saying, What shall I do, because I have no room where to bestow my fruits?

"And he said, This will I do: I will pull down my barns, and build greater; and there will I bestow all my fruits and my goods.

"And I will say to my soul, Soul, thou hast much goods laid up for many years; take thine ease, eat, drink, and be merry.

"But God said unto him, Thou fool, this night thy soul shall be required of thee: then whose shall those things be, which thou hast provided?

"So is he that layeth up treasure for himself, and is not rich toward God."

The nation that seeks only its own ease and prosperity, and is not rich toward duty as the supreme object of its life, cannot be rich toward mankind or toward God.

## THE FERTILIZER INDUSTRY OF THE COUNTRY.

**I**N the early days of the Republic there was an accepted saying, couched in the picturesque language of the pioneer, to the effect that a tickling of the soil was all that was needed to bring the laughing of a harvest. How far times have changed since may be gathered from the fact that, in 1914, the value of all fertilizers consumed in this country amounted to more than \$150,000,000.

This is the outstanding item in the most exhaustive report that has yet been made on the fertilizer industry, which has just been issued by the Federal Trade Commission. Not only is it the first of its kind to appear, but it is of exceptional importance to the South on account of the relation it holds to the crops of that section, particularly cotton.

The fertilizers used in the United States are purchased by the farmer in mixed form rather than in the form of the several materials that combine to make the final product. They are furnished by about 800 concerns, operating some 1200 plants, although the seven largest companies, with their affiliated concerns, control more than 58 per cent. of the total output.

The report shows that the prices of materials, with the exception of potash salts—in which Germany has a natural monopoly—are controlled fundamentally by conditions of supply and demand. The influence of the European beet industry affects the prices of soda and sulphate of ammonia, but the cost of organic ammoniates is closely connected with corn prices and the demand for other organic ammoniates, tankage, dried blood and fish scrap.

One of the most important features of the fertilizer industry of late has been the rapid increase of local dry-mixing concerns in the cotton-growing States. This development is not without its relation to a vigorous propaganda in favor of home mixing, which has received its natural impetus from the knowledge spread of the difference between the prices charged for the several elements entering into the finished product and the product itself.

The attitude of the Prussian Government is unchanged as regards the sale of German potash salts which are handled by a syndicate of mine owners, in which the German Government participates, and which syndicate by legislation applying to the sale of potash salts has since the law of May 25, 1910, practically eliminated all price competition among consumers.

With the exception of potash salts, then, the report shows conclusively that price movements are in the main controlled by conditions of supply and demand. These in turn are largely referable to seasonal conditions of overproduction or underproduction, but to a far more important extent to the matter of credit purchase or cash purchase.

The rapid increase of dry-mixing concerns in the Southern States as well as the spreading of a propaganda for home mixing has, it is claimed, resulted to the benefit of the Southern planter. The other question of ability to pay cash for the fertilizers makes the difference in cost dependent upon the condition of agricultural credits. When cash is proffered, the purchaser reaps a high interest on his fertilizer purchase. This lacking, a higher toll is exacted by manufacturers, who must wait for their pay until the crops on which the fertilizers are used have been harvested. This means, as in other items of agricultural business, that the prices paid for fertilizers and mixed goods by a majority of the Southern farmers are bound to be excessive as compared with the cash value of the fertilizers purchased.

The report of the Federal Trade Commission furnishes an important answer to the natural query of profits by the companies engaged in the fertilizer industry in this country. It states in clear terms that these are not large. The statements of earnings and expenses for the years 1910 to 1914 obtained from four large companies show that, while sales increased rapidly, the expenses indicated a still more rapid increase, with a corresponding decline in profits. The net sales for this period increased 42 per cent., but the total expense rose 54

per cent., the net profits consequently decreasing 18 per cent.

The investigations of the commission are of more significance than the figures regarding the corporations. These indicate that present credit conditions, particularly in the South, are exceptionally burdensome. Most tenants and many small land owners have to pay a high rate of interest to enable them to make cash purchases, or else they pay the proportionate advance for their credit purchases of the fertilizers needed for the crop about to be put into the ground.

A feature of the mixed-fertilizer business has been the operation of various controlled companies as independent concerns. Of these three of the large companies have acquired an interest ranging from 50 to 100 per cent. in numerous local dry mixers in the Southern States.

The Federal Trade Commission regards as a particularly objectionable feature the operation of subsidiary and affiliated companies with the concealment of the connection of the controlled companies with the parent company. The Virginia-Carolina Chemical Co. voluntarily removed all misunderstanding as regards its affiliations and operations by identifying all of the companies owned by it on their letterheads, advertising matter and contracts. Other companies have agreed to make their relations equally clear, so that it will soon be possible, for the most part, for State officials, dealers and, what is even more important, farmers to know with whom they are really dealing.

The report of the commission enters fully into the various organic and inorganic elements that play their part in a valuable commercial fertilizer. These are dependent, naturally, on the differing demands of the particular soils to which they are to be applied. The three essential elements for a complete fertilizer are put down as nitrogen, phosphorous and potassium. Nitrogen influences especially the leaf growth of the plant, phosphorous the fruiting and seed production and potassium in an especial manner the formation of starch, sugar, cellulose, etc.

Of superior interest are the figures showing the total estimated consumption of fertilizers in this country in recent years. This for the country at large increased nearly 56 per cent. in the six years 1909 to 1914, inclusive. The increase was regular except in 1912, when a falling off of 3.6 per cent. was shown, in comparison with the figures for the year before. In Georgia the increase for the six-year period under consideration was nearly 59 per cent. This State led all others in the enlarged use of fertilizers. South Carolina was the next largest State, with an increase of 38 per cent. in 1911 over 1909, reaching to 45 per cent. in 1914. For four Southern States—Georgia, South Carolina, North Carolina and Alabama—the consumption of commercial fertilizers constituted about 50 per cent. of the total for the United States in the six years of 1909 to 1914, inclusive, the range being from 53.7 per cent. in 1911 to 49.6 per cent. in 1913. New York is the next single State in the lead of annual commercial fertilizer consumption, with 6.4 per cent. of the nation's total, Virginia following closely with 5.7 per cent., and Pennsylvania next with 5.0 per cent. While most of the remaining States are considerably below in actual tonnage of fertilizer consumption, those using less than 100,000 tons yearly showed an increase of more than 93 per cent. for the six-year period over earlier figures; yet these other 33 States consumed in each year less than the single State of South Carolina.

## THE SOUTH'S NEED FOR A PROTECTIVE TARIFF.

**T**HE number of electoral votes necessary for a choice of President is 266. The number of electoral votes in the South and Southwest are as follows: Alabama, 12; Arizona, 3; Arkansas, 9; Florida, 6; Georgia, 14; Kentucky, 13; Louisiana, 10; Maryland, 8; Mississippi, 10; New Mexico, 3; North Carolina, 12; Oklahoma, 10; South Carolina, 9; Tennessee, 12; Texas, 20, and Virginia, 12.

Thus the South and Southwest, with 163 electoral

votes, might easily control any election. If New York, Illinois and Pennsylvania were to vote with the South and Southwest, there would be more than enough votes for the election of a President. All the rest of the country, with the exception of the three big States mentioned, could vote the other way without the result being affected.

The political power of the South and Southwest will not be felt in the nation, despite its 163 electoral votes, so long as nearly all these States vote according to tradition rather than with a view of self-preservation and the development of their natural resources through a protective tariff.

It is interesting to note, however, that the National Hughes Alliance recently made a coupon canvass throughout the Southern States and reported an extraordinary defection on the part of the Democrats of the South. The statement of the National Hughes Alliance says, in part:

A great deal of evidence rapidly accumulated to show that the enrollments were not merely from the small proportion of the population which habitually votes the Republican ticket in Southern States, but represented men in all walks of life, from the highest to the lowest. Particularly striking was the response from substantial business men; bankers, manufacturers, wholesale and retail merchants, officers and employees of railroads, insurance and real estate agents, and farmers were represented in large numbers.

Many of them were accompanied by letters from life-long Democrats, who felt it necessary to explain why they were supporting Hughes in this campaign. Many of these reiterated their faith in the democratic party, but insisted that President Wilson had betrayed his party. Many indicated also that their vote for Mr. Hughes would be the only point at which they would separate from their party, and that locally they would vote the Democratic ticket.

A large number of the letters referred directly to the President's action in regard to the Adamson bill as a determining factor in inducing them to support Mr. Hughes.

In the Southwest, particularly in Texas, Arizona and New Mexico, where the enrollments have been very large, the signers have indicated that the Administration's lack of a consistent Mexican policy was a determining factor in their attitude. The enrollment in the Alliance from Texas is one of the largest of any State in the Union. It includes half a dozen mayors from Texas cities and a big proportion of prominent business men. Some of them even go so far as to express the belief that the anti-Wilson sentiment in Texas is strong enough to carry the State for Hughes.

We do not know anything about how this canvass was made or with what thoroughness, but we do know that the protective tariff sentiment is rapidly growing in this section, and that this is a hopeful augury for the increasing prosperity of the South. This section needs a protective tariff more than any other part of the country. It had a right to demand that its own representatives should protect its industrial development by an adequate tariff, but as they have steadily refused to do so, no one but the Democratic party itself will be responsible for the rising tide of opposition in the South to the failure of the party to safeguard the South from the evils of free trade.

## WANTS TO KNOW.

**T**HE Greensboro (N. C.) Daily News asks a series of questions, the answers to which would interest a number of people of the country at this time, as herewith:

With Pilate, what is truth?

Under what conditions would a nation be too proud to fight?

If America is as ready to fight as any nation in the world, what would constitute a just cause?

Would a nation, ready as any other nation to fight, find a just cause for fighting in the destruction of the lives and property of its citizens and the desecration of its flag?

What is intervention in the affairs of another country?

When is it none of our business what happens in neighboring countries?

What is the 1916 interpretation of the Monroe doctrine?

When is a blockade illegal, indefensible and ineffective?

What is force as applied to Congress, if there has been none?

Just where does loyalty and disloyalty in citizenship begin?

At what stage of the casualty list does peace become war?

How is one to distinguish between the pronouncement of a Government policy and the utterance of an aimless soliloquy?



# 702 Southern Banks Report as to Effect on Business of Prohibition

A GROWING TENDENCY THROUGHOUT SOUTH TO INCREASED SAVINGS BANK DEPOSITS.

FROM 770 bankers in Alabama, West Virginia, North Carolina, Georgia and South Carolina, the MANUFACTURERS RECORD has now received and published, South Carolina being given this week, a total of 770 answers to its question:

"Can you say whether prohibition has been helpful to savings bank accounts and general moral and economic conditions or not?"

Out of these 770 replies to this question, 634 are in the affirmative, and many of them are very emphatic in their statement in favor of prohibition and their reasons therefor. This is 82.3 per cent. who replied in favor of the good effect of prohibition out of the total. Only 68 replied that they have seen no benefit from prohibition, while 68 are non-committal.

Taking those who definitely answered for or against prohibition we have 702. Of this number, 634, or 90.3 per cent., responded in favor of prohibition as having a beneficial effect upon savings bank accounts and moral and economic conditions, while only 68, or 9.6 per cent., reported adversely.

This, we believe, is the most comprehensive canvass of the banking interests of prohibition States which has ever been made. That more than 90 per cent. of those who answered "yes" or "no" on the prohibition question are enthusiastically in favor of the beneficial effects of prohibition, while only 9.6 per cent. are in the negative, is an overwhelming argument in favor of the good effect of prohibition wherever it has been put into effect in these Southern States. Indeed, the testimony is so nearly unanimous that the negative replies are hardly worth considering, for it would scarcely be possible to get a larger percentage of votes in favor of any subject on earth from so many and so widely scattered business interests. That less than 10 per cent. of these 702 bankers who have replied to this question, basing their information on direct personal knowledge as to business conditions, should be against prohibition shows that from the business standpoint there is absolutely no argument left for the legalized licensed liquor traffic.

The South, on economic as well as on moral grounds, has definitely taken its stand in behalf of prohibition. It proposes to wipe out the accursed traffic, which endangered the morals and the business vitality of this section, as it does of any section where it is a dominant power. That the South is being outrageously slandered and misrepresented by the liquor interests in their effort to claim that this section has been injured from the business standpoint by prohibition is shown by these replies from bankers to be as false as is every other argument advanced by the liquor traffic in its own defense.

The South in the past was wasting \$600,000,000 a year or more in alcoholic drinks, cursing body and soul as well as injuring business conditions throughout this section. This annual waste on liquor is more than twice as much as the aggregate national banking capital of the South. This fearful curse was not only destroying the negro race, but it was, to an extent almost equally as great, ruining whites, for the liquor business has no preference as to race or color or creed. This vast waste of money will to a large extent be saved; it will go into the channels of honest trade; it will pay for groceries and shoes, and clothes and homes, instead of being paid for alcohol. It will mean a rejuvenated South; it will mean a tremendous influence in saving the negro race from destruction, and the destruction of the negro race would help largely to pull down the white race, for purity and rottenness cannot exist side by side. One or the other must win.

There is also another point from which the South can view its fight for prohibition with much satisfaction. It is well known that the great manufacturing interests of the North and West are bending every possible energy to lesson the use of alcohol by their employees when off duty as well as when on duty. They recognize that the drinking man is an inefficient man; they know full well from experience that the man who drinks at night is not safe to run machinery in the day; they know that effi-

## South Carolina.

Name of Bank.	Address.	Strictly Savings Deposits.	Is There Tendency to Increase?	Has Prohibition Helped Savings Accounts and General Moral and Economic Conditions?
Farmers' Bank.....	Abbeville.....	\$52,375		Cannot say.
Bank of Western Carolina.....	Aiken.....	460,127	Yes.	It has helped.
Farmers and Merchants'.....	Aiken.....	63,550	No.	Can't say as yet.
First National.....	Aiken.....	69,000	Yes.	Yes.
Farmers' Loan & Trust Co.....	Anderson.....	200,000		Yes.
Bank of Andrews.....	Andrews.....	20,000	Yes.	Unable to come to definite decision.
Bank of Aynor.....	Aynor.....	2,985	Yes.	Prohibition plays its part.
Bamberg Banking Co.....	Bamberg.....	82,000	Yes.	Yes, greatly.
Bank of Western Carolina.....	Barnwell.....	87,805	Yes.	Not directly in deposits. Moral and economic conditions are improving.
Home Bank.....	Barnwell.....		Yes.	Yes.
Citizens' National.....	Batesburg.....	46,030	Yes.	Yes.
First National.....	Batesburg.....	82,565	Yes.	Yes.
Bank of Beaufort.....	Beaufort.....	125,000	Yes.	To a small degree.
People's Bank.....	Beaufort.....	208,153	Yes.	Yes.
Bank of Bethune.....	Bethune.....	14,000	Yes.	Think so.
Farmers' Loan & Trust Co.....	Bishopville.....	5,168	No.	No.
First National.....	Bishopville.....	46,517	Yes.	Has been helpful.
Bank of Western Carolina.....	Blackville.....	50,000	Yes.	Can't say, but believe prohibition has been helpful to moral conditions.
Bank of Camden.....	Camden.....	120,249	Yes.	Not to any extent economically, but morally quite an improvement.
First National.....	Camden.....	162,600	Yes.	Yes, decidedly.
Loan and Savings Bank.....	Camden.....	36,580	Not marked.	Yes.
Bank of Cameron.....	Cameron.....	43,388	Yes.	Yes.
People's Bank.....	Campobello.....	18,637	Yes.	Yes.
Bank of Carlisle.....	Carlisle.....	15,768	Yes.	Yes.
Bank of Central.....	Central.....			
Bank of Charleston.....	Charleston.....	2,000,000	Yes.	
Commercial National.....	Charleston.....	495,832	No.	No.
Germania National.....	Charleston.....	455,582	Yes.	Prohibition law appeals to very few; generally obnoxious.
Germania Savings Bank.....	Charleston.....	3,079,707	Yes.	No effect. The law is obnoxious here.
Miners and Merchants' Bank.....	Charleston.....	310,311	Yes.	No.
State Savings Bank.....	Charleston.....	200,000	Yes.	
Bank of Cheraw.....	Cheraw.....	150,000	Yes.	Yes.
Cheraw Clearing House.....	Cheraw.....		Yes.	Yes.
Duval Trust Co.....	Cheraw.....	No savings accounts.		
Trust Company.....	Cheraw.....	No savings accounts.		
Bank of Chesnee.....	Chesnee.....	25,000	Yes.	No.
Commercial Bank.....	Chester.....	160,000	Yes.	Yes, it has.
People's Bank.....	Chesterfield.....	15,000	Yes.	Yes, a great force in saving and uplifting to higher standard of morals.
First National.....	Clinton.....	62,703	Yes.	Think so.
People's Savings Bank.....	Clio.....	15,000	Yes.	Yes, to a large extent.
Bank of Columbia.....	Columbia.....	200,000	Yes.	Yes.
Carolina National.....	Columbia.....	985,000	Yes.	Cannot say that prohibition has had anything to do with savings deposits.
Homestead Bank.....	Columbia.....	19,727	Slight.	Do not have prohibition; have "a gallon-a-month law," which works no benefit.
Lower Main Street Bank.....	Columbia.....	22,000	Yes.	Increase is noticeable.
Nat. Loan and Exch. Bank.....	Columbia.....	1,191,882	Yes.	No prohibition in this State.
National State.....	Columbia.....	285,203	Yes.	
People's National.....	Columbia.....	150,711	Yes.	It has.
Converse Savings Bank.....	Converse.....	70,000	Yes.	Not so in this particular section.
People's National.....	Conway.....	69,175	Yes.	Has not affected savings accounts much, but has helped moral and general conditions.
Farmers and Merchants'.....	Cottageville.....	25,188	Yes.	Certainly has helped moral and economic conditions, and these benefit savings bank accounts.
Bank of Darlington.....	Darlington.....	201,683	Yes.	Yes.
People's Bank.....	Darlington.....	138,000	Yes.	Do not know, but doubtful.
Bank of Dillon.....	Dillon.....	98,167	Fair.	No.
People's Bank.....	Dillon.....	Planning to open savings department.	Think so.	It has been.
Easley Loan & Trust Co.....	Easley.....	95,390	Yes.	Decidedly, yes.
Farmers and Merchants' Bank.....	Eastover.....	2,700	Yes.	Yes, all lines of business increased since prohibition went into effect.
Farmers' Bank.....	Edgefield.....	130,000	Yes.	Indeed it has.
Bank of Edgefield.....	Edgefield.....	164,036		Cannot say.
Bank of Western Carolina.....	Ellenton.....	9,619	Yes.	Has been helpful.
First National.....	Ellenore.....	74,483	Yes.	Yes.
Bank of Ellenore.....	Ellenore.....	36,487	Yes.	
Bank of Florence.....	Florence.....	167,513	Yes.	It has been.
Palmetto Bank & Trust Co.....	Florence.....	46,276	Yes.	Think it has.
First National.....	Fort Mill.....	35,000	Yes.	Yes.
Bank of Fountain Inn.....	Fountain Inn.....	76,235	No.	
Cherokee Springs Bank.....	Gaffney.....	39,404	Yes.	Prohibition in effect before bank opened.
Bank of Georgetown.....	Georgetown.....	261,960	Yes.	Not prepared to answer now.
People's Bank.....	Georgetown.....	117,500	Yes.	Can't say.
Bank of Graniteville.....	Graniteville.....	110,290	Yes.	Cannot say.
Bank of Grey Court.....	Grey Court.....	96	No.	
American Bank.....	Greenville.....	235,000	Yes.	We think so.
Bank of Commerce.....	Greenville.....	218,026	Yes.	We think so.
City National.....	Greenville.....	15,000	Yes.	It has.
Norwood National.....	Greenville.....	250,000	Some.	Yes.
People's National.....	Greenville.....	412,000	Yes.	It has probably been a helpful factor.
Commercial Bank.....	Greenwood.....	81,827	Yes.	Yes.

Name of Bank.	Address.	Strictly Savings Deposits.	Is There Tendency to Increase?	Has Prohibition Helped Savings Accounts and General Moral and Economic Conditions?
National Loan & Exch. Bank.	Greenwood	70,000	Yes.	It has.
People's Bank.	Greenwood	50,997	Yes.	
People's Trust Co.	Greenwood. No savings dept.			
Bank of Greer.	Greer	150,000	Yes.	We believe so.
Planters' Savings Bank.	Greer	120,000	Yes.	Yes.
Bank of Hampton.	Hampton	75,000	Slightly.	Yes, to a great extent.
Hampton Loan and Ex. Bk.	Hampton	15,000	Yes.	Yes.
Bank of Hartsville.	Hartsville	127,863	Apparently.	Do not know.
First National.	Hartsville	44,000	No.	Yes.
People's Bank.	Harleyville	12,000	Yes.	Yes.
Bank of Hickory Grove.	Hickory Grove	22,576	Yes.	Yes.
Bank of Hodges.	Hodges	10,000	Yes.	Yes.
First National.	Holly Hill	155,000	Yes.	Yes.
Bank of Inman.	Inman	26,212	Yes.	We think so.
Jefferson Bank.	Jefferson. No savings accounts.		No.	Yes, decidedly.
Bank of Johnston.	Johnston	14,662	Yes.	Have not had whiskey for long time.
Bank of Williamsburg.	Kingstree	51,000	Yes.	General economic results good.
Bank of Lake City.	Lake City	25,000	No.	Recently had prohibition. Can see that it will help financial conditions great deal.
Farmers and Merchants' Nat. Bank.	Lake City	120,000	Yes.	It has.
Bank of Lancaster.	Lancaster	201,243	Yes.	Yes.
Bank of Latta.	Latta. No savings accounts.			
Enterprise National.	Laurens	123,000	Yes.	Yes, decidedly.
Laurens National.	Laurens	77,000	Yes.	Yes.
Laurens Trust Co.	Laurens. No savings dept.		Yes.	Yes.
Lucas Bank.	Laurens	13,148	Yes.	It has.
People's Loan and Ex. Bank.	Laurens	15,107	Yes.	Yes.
Bank of Western Carolina.	Lexington	41,524	Yes.	
Liberty Bank.	Liberty		Yes.	Sure that it has.
Bank of Loris.	Loris	11,426	Yes.	Yes.
Lowndesville Banking Co.	Lowndesville	25,000	Yes.	Think so.
Bank of McColl.	McColl	25,000	Yes.	Yes.
Bank of Clarendon.	Manning	25,000	Not especially so.	Yes, very much.
Bank of Manning.	Manning	84,495	Yes.	Yes, indeed.
Farmers and Merchants' Bank.	Marion	130,000	Yes.	Cannot say.
Marion National.	Marion	85,000		
Bank of Mullins.	Mullins	29,378	Yes.	No.
Merchants and Planters'.	Mullins. No savings dept.			
Commercial Bank.	Newberry	370,000		
Exchange Bank.	Newberry	105,515	Yes.	We think so.
National Bank of Newberry.	Newberry	171,174	Yes.	Can't say.
Newberry Savings Bank.	Newberry	80,000	Normal.	Yes.
Brookland Bank.	New Brookland.	45,800	Yes.	Think so.
Bank of North.	North	14,300	Yes.	Yes.
Farmers and Merchants' Bank.	Norway	1,900	Yes.	Yes.
Bank of Orangeburg.	Orangeburg	535,705	Yes.	Yes.
Farmers and Merchants'.	Orangeburg	16,000	Yes.	Moral and economic conditions improved.
Farmers' Union Bk. & Tr. Co.	Orangeburg	48,000	Yes.	Yes.
Planters' Bank.	Orangeburg	83,235	Yes.	Yes.
Bank of Pacolet.	Pacolet	8,498	Yes.	Yes.
Bank of Pageland.	Pageland	572	Yes.	Yes.
Farmers and Merchants' Bank.	Pamlico	6,470	Not as should be.	Would be if enforced.
Bank of Pendleton.	Pendleton	32,968	Yes.	Not for us here.
Pickens Bank.	Pickens	100,000	Slight.	
Bank of Piedmont.	Piedmont	50,000	Yes.	It has.
Pineville Loan and Sav. Bk.	Pineville	5,000	Some.	Yes.
Pomaria Bank.	Pomaria	16,000	Yes.	Yes.
People's National.	Prosperity	170,800	Yes.	Yes.
Bank of Ridgeway.	Ridgeway	36,725	Yes.	Yes, decidedly.
People's National.	Rock Hill	242,000	Very much.	Can't say.
Bank of St. George.	St. George	97,454	Yes.	Yes.
Farmers' Bank.	St. George	15,000	Yes.	Cannot say.
Home Bank.	St. Matthews	38,401	Yes.	Yes.
Bank of St. Pauls.	St. Pauls	24,000	Yes.	Yes, we think so.
Bank of Western Carolina.	Salley	29,571	Yes.	Notice no difference, as drinking men under present law manage to get as much as they care for.
Citizens' Bank.	Seneca. Certif. dep.	101,000	Yes.	Yes.
Seneca Bank.	Seneca	61,000	No.	
First National.	Sharon	5,284	Yes.	Don't know.
American National.	Spartanburg	10,000	Yes.	Think so.
Bank of Spartanburg.	Spartanburg	275,000		
Bank of Commerce.	Spartanburg	145,133	Yes.	Yes.
First National.	Spartanburg	616,996	Yes.	It has.
Southern Trust Co.	Spartanburg	150,000	Yes.	Rather think so.
Bank of Springfield.	Springfield	33,500	Yes.	Yes.
Bank of Summerton.	Summerton	33,081	Yes.	Yes, in our opinion.
Bank of Dorchester.	Summerville	171,000	Yes.	No.
Nicholas County Bank.	Summerville. No savings accts.		Cannot say.	
Commercial and Sav. Bank.	Sumter	39,800	Yes.	Yes.
Nat. Bank of South Carolina.	Sumter	187,000	Yes.	Yes.
National Bank of Sumter.	Sumter	152,000	Yes.	Yes.
Citizens' Bank.	Taylors	15,000	Yes.	Would be if enforced.
Farmers' Bank.	Travelers Rest	30,262	Yes.	Yes.
Bank of Trenton.	Trenton	21,000	Yes.	Does not affect our bank.
Merchants and Planters' Bk.	Union	80,000	Yes.	Yes.
Nicholson Bank & Tr. Co.	Union	23,787		We think so.
	Time deposits.	118,974		
People's Bank.	Union Mills	29,871	Yes.	Yes.
Bank of Walhalla.	Walhalla. Certif. dep.	292,000	Yes.	Yes.
Enterprise Bank.	Walhalla	65,000	Yes.	Yes.
Farmers and Merchants'.	Walterboro	132,000	Yes.	Yes.
First National.	Walterboro	29,988	Yes.	Yes.
Bank of Ward.	Ward	25,304		
Bank of Waterloo.	Waterloo	11,288	Yes.	Yes.
Westminster Bank.	Westminster	168,962	Yes.	Yes.
Bank of Williston.	Williston	46,000	Yes.	Yes.
Bank of Willfield.	Winnsboro	82,943	Yes.	We believe it has.
Merchants and Planters'.	Winnsboro	56,846	Yes.	Yes.
Winnsboro Bank.	Winnsboro	128,250	Yes.	
Bank of Whitmire.	Whitmire	8,277	Yes.	Yes.
Bank of Yemassee.	Yemassee	7,500	Yes.	Yes.
First National.	York	31,000	No.	Don't know.
Loan and Savings Bank.	York	145,000		

ciency can only be developed where sobriety exists; they know that homes of wretchedness and sorrow cannot send forth men equipped to do men's work, and so these Northern and Western manufacturing concerns are bending every possible effort to put down the whiskey traffic and to encouraging their men in sobriety. In our next issue we shall publish a good many pages of remarkable reports from leading iron and steel concerns of the country on this subject.

If the South failed to lessen its liquor traffic, it would find that its employees could not successfully compete with those of the North and West, who, through the fight that is being waged against alcohol, are strengthening their efficiency.

At the beginning of the European war Lloyd George, the master mind of Great Britain, said that England had two enemies—Germany and whiskey—and he was inclined to believe that whiskey was a more powerful enemy than Germany.

Russia, in order to save its people and to make possible the development of its armies, abolished the sale of vodka, although in doing so the Russian Government cut short its own annual income by four or five hundred million dollars, counting that it could better afford to lose this vast sum, even in the face of war, than it could undertake to carry on war hampered by the curse of the drinking habit among its soldiers.

The fight that is being made in Europe against alcoholic drinks, typified in the action of Russia, must be made in this country from the business as well as from the moral standpoint. This country is now spending at least \$2,500,000,000 a year on alcoholic drinks, and we are probably spending equally as much in the proportion, due to the liquor traffic, in the maintenance of the jails and penitentiaries and almshouses and police systems and kindred operations.

It is safe to say that alcohol, in one form and another, whether as a drink which wastes body and soul, which lessens business efficiency, which is responsible for many of the riots of the country and for a large part of the expense of the maintenance of penitentiaries and jails and police systems, costs this country not less than \$5,000,000,000 a year. This is not only an absolute waste from every standpoint of economic welfare, but a waste of human energy and human efficiency far greater than any actual money loss.

If we could measure the cost to the world of alcohol from all of these standpoints during the last ten years, it could be easily seen that the aggregate cost in that period has probably far exceeded the total cost of Europe's fearful war.

We shudder at the unspeakable horrors of the blood-stained battlefields of Europe, and of the voiceless sorrow of the hundreds of millions whose loved ones are engaged in this death struggle, and our political economists marvel that Europe can carry the fearful cost of this struggle, but in the long run alcohol has cost the world more in money, in suffering and sorrow than Europe's great war.

And then, too, the soldier on the battlefield develops heroism, and those at home, while they suffer in his suffering, look with unending pride upon his achievements and glory in his work. His grave is honored; his name goes down to posterity as one who has done a hero's work, and his family are cheered by the realization that every friend and acquaintance is impelled to laud in highest terms every man who on the battlefield of Europe gives his life from a sense of duty. War thus has this redeeming feature to cheer the soldier and his loved ones, and to develop a spirit of heroism and self-sacrifice.

On the other hand, the drinker's family, to the farthest connection, live in terror and in shame. They seek in vain to hide their disgrace from relatives and friends. They try to bear their burdens alone, but they know that all around them people are pointing to some loved one as a drunkard, disgraced in the eyes of man and God. The soldier goes to an honored grave, the drunkard to a dishonored one. Even war has some saving grace in the development of men, while drink has not a single element in its favor. It is degrading; it impoverishes body and soul, and brings unspeakable poverty and woe upon mothers and wives and children, and its aggregate cost over a long term of years



## Virginia.

Name of Bank.	Address.	Strictly Savings Deposits.	Is There Tendency to Increase Savings?
People's National.....	Abingdon.....	\$7,500	Yes.
Bank of Alberta.....	Alberta.....	Open savings dept. this fall	
Farmers and Merchants' Bank.....	Amelia.....	78,000	Yes.
Bank of Amherst.....	Amherst.....	Certificates of dep. 135,000	
Farmers' Bank.....	Amherst.....	308	No.
First National.....	Appalachia.....	132,000	Yes.
People's Bank.....	Appalachia.....	5,000	Yes.
Hanover Bank.....	Ashland.....	78,933	Yes.
Bank of Bassett.....	Bassett.....	No savings dept.	
Belle Haven Bank.....	Belle Haven.....	8,000	Yes.
Bank of Clarke County.....	Berryville.....	125,000	Rather
First National.....	Berryville.....	120,441	Yes.
Bank of Blacksburg.....	Blacksburg.....	70,267	No.
Citizens' Bank.....	Blackstone.....	220,000	Yes.
Accomack Banking Co.....	Bloom.....	140,000	Yes.
Farmers and Merchants'.....	Boone Mill.....	42,000	Yes.
Caroline County Bank.....	Bowling Green.....	200,000	Yes.
Boyce State Bank.....	Boyce.....	13,000	Yes.
Meherrin Valley Bank.....	Boykins.....	32,919	Think not.
Bank of Branchville.....	Branchville.....	22,000	Yes.
Planters' Bank.....	Bridgewater.....	36,000	Yes.
Bank of Bristol.....	Bristol.....	14,000	Little.
Washington Trust and Savings Bank.....	Bristol.....	172,680	Think so.
First National.....	Broadway.....	16,540	Yes.
First National.....	Brookneal.....	45,000	Yes.
Bank of Buchanan.....	Buchanan.....	5,356	No.
	Certificates of deposit.....	192,445	
First National.....	Buena Vista.....	Certif. of dep. 136,000	Yes.
People's Bank.....	Buena Vista.....	22,000	Yes.
Farmers and Merchants' Bank.....	Burkeville.....	43,000	Yes.
Cape Charles Bank.....	Cape Charles.....	50,932	No.
Cartersville Bank.....	Cartersville.....	50,000	Yes.
National Bank of Charlottesville.....	Charlottesville.....	400,000	Yes.
People's National.....	Charlottesville.....	1,160,000	Yes.
First National.....	Chase City.....	13,592	Yes.
	Certificates of deposit.....	121,493	
First State Bank.....	Chase City.....	48,958	Yes.
Planters' Savings Bank.....	Chatham.....	260,000	Yes.
First National.....	Clifton Forge.....	550,615	Yes.
Farmers and Merchants'.....	Clinchport.....	10,000	Yes.
Dickenson County Bank.....	Clintwood.....	No savings accts.	No.
Bank of Clover.....	Clover.....	31,000	Yes.
First National.....	Coeburn.....	51,700	Yes.
State Bank.....	Columbia.....	100,000	Yes.
Crabbottom Valley Bank.....	Crabbottom.....	No sav. accts.	Some.
First National.....	Crewe.....	110,000	Yes.
Bank of Crozet.....	Crozet.....	22,051	Yes.
Commercial Bank.....	Danville.....	18,000	Yes.
First National.....	Danville.....	134,000	Yes.
Bank of Dayton.....	Dayton.....	9,872	Yes.
Bank of Dendron.....	Dendron.....	95,000	Yes.
Merchants and Planters' Bank.....	Dillwyn.....	18,500	Yes.
Bank of Disputanta.....	Disputanta.....	23,000	Yes.
State Bank of Charlotte County.....	Drakes Branch.....	Certif. dep. 67,917	
Bank of Draper.....	Draper.....	No savings dept.	No.
Bank of Dublin.....	Dublin.....	No savings dept.	No.
Eagle Rock Bank.....	Eagle Rock.....	100,000	Yes.
Farmers' Bank.....	Edinburg.....	18,000	Yes.
Farmers' Bank.....	Elk Creek.....	No savings dept.	No.
Greensville Bank.....	Emporia.....	165,000	Very little.
First National.....	Farmville.....	233,850	Yes.
People's National.....	Farmville.....	70,000	Yes.
Planters' Bank.....	Farmville.....	200,000	Yes.
Planters' National.....	Fredericksburg.....	72,000	Yes.
Bank of Fincastle.....	Fincastle.....	Certif. of dep. 60,000	Slight.
Washington Banking & Trust Co.....	Fries.....	4,400	Yes.
	Certificates of deposit.....	40,000	
First National.....	Galax.....	105,301	Yes.
First National.....	Gate City.....	Time certif. only	No.
Bank of Glade Springs.....	Glade Springs.....	Time certif. 45,000	
Bank of Glasgow.....	Glasgow.....	18,729	Yes.
National Bank of Gordonsville.....	Gordonsville.....	14,000	Yes.
Bank of Riverheads.....	Greenville.....	21,055	Yes.
People's Bank of Elba.....	Gretna.....	No savings accts.	
Bank of Grottoes.....	Grottoes.....	17,982	Yes.
First National.....	Hampton.....	209,679	Yes.
Merchants' National.....	Hampton.....	241,000	Yes.
First National.....	Harrisonburg.....	580,258	Yes.
People's Bank.....	Harrisonburg.....	100,000	Yes.
Bank of Northumberland.....	Heathsville.....	26,586	Yes.
Citizens' Bank of Carroll.....	Hillsville.....	Time certif. of dep. only	
Farmers' Bank.....	Hillsville.....	No savings dept.	No.
First National.....	Honaker.....	2,500	Yes. Depart- ment open- ed in June.
People's Bank.....	Houston.....	132,300	Yes.
Bank of Ivanhoe.....	Ivanhoe.....	No savings accts.	
Bank of Jarratts.....	Jarratt.....	57,002	Yes.
Powell Valley Bank.....	Jonesville.....	No savings dept.	
State Bank of Charlotte Co.....	Keysville.....	40,464	Yes.
Farmers' and Merchants' Bank.....	Kilmarnock.....	126,474	Yes.
Bank of La Crosse.....	La Crosse.....	15,000	Yes.
Bank of Brunswick.....	Lawrenceville.....	17,000	Yes.
Bank of Lawrence.....	Lawrenceville.....	77,722	Yes.
First National.....	Lawrenceville.....	18,000	Yes.
First National Lebanon.....	Lebanon.....	No savings dept.	
Rockbridge National.....	Lexington.....	260,000	Yes.
Bank of Nelson.....	Livingston.....	50,626	Yes.
First National.....	Lynchburg.....	1,450,000	Yes.
Lynchburg National.....	Lynchburg.....	520,000	Small.
Lynchburg Trust and Savings Bank.....	Lynchburg.....	1,907,500	Yes.

## VIRGINIA—Continued.

Name of Bank.	Address.	Strictly Savings Deposits.	Is There Tendency to Increase Savings?
Mutual Savings Bank & Trust Co.....	Lynchburg.....	280,000	Yes.
People's National.....	Lynchburg.....	695,000	Savings?
United Loan & Trust Co.....	Lynchburg.....	323,000	Not to any extent.
Bank of Dinwiddie.....	McKenney.....	16,000	Yes.
Marion National.....	Marion.....	90,000	Not as much as should be.
Bank of Mathews.....	Mathews.....	120,000	Yes.
County Bank.....	Meadow View.....	Certif. of dep. 25,000	
Prince Edward-Lunenburg County Bank.....	Meherrin.....	Certif. of dep. 37,437	Yes.
Melfa Banking Co.....	Melfa.....	28,261	
Bank of Mendota.....	Mendota.....	No savings dept.	Yes.
Bank of Millboro.....	Millboro.....	5,200	Yes.
Farmers' Savings.....	Monet.....	54,113	Yes.
People's Bank.....	Montross.....	13,000	Yes.
Mt. Solon Bank.....	Mount Solon.....	38,186	Yes.
First State Bank.....	Narrows.....	37,800	Yes.
Bank of New Hope.....	New Hope.....	15,855	Yes.
First National.....	New Market.....	2,096	Yes.
Sinking Creek Valley Bank.....	Newport.....	31,000	Yes.
Citizens' and Marine Bank.....	Newport News.....	500,000	Not with this bank.
First National.....	Newport News.....	720,708	
Jefferson Bank.....	Newport News.....	155,000	Yes.
Farmers' Exchange Bank.....	Nickselsville.....	No sav. accts.	
Bank of Nokesville.....	Nokesville.....	18,000	Small.
Brown Savings & Banking Co.....	Norfolk.....	85,000	Yes.
Church Street Bank.....	Norfolk.....	37,859	Yes.
Merchants and Mechanics' Sav. Bk.....	Norfolk.....	1,250,000	Yes.
National Bank of Commerce.....	Norfolk.....	2,940,000	Yes.
Norfolk National.....	Norfolk.....	1,753,763	Yes.
People's Bank & Trust Co.....	Norfolk.....	326,285	Slight.
Seaboard National.....	Norfolk.....	844,770	
Virginia Bank & Trust Co.....	Norfolk.....	No savings dept.	
Virginia National.....	Norfolk.....		
First National.....	Norton.....	25,210	Yes.
National Bank.....	Norton.....	11,570	Yes.
Bank of Palmyra.....	Palmyra.....	37,387	Yes.
First National.....	Pearisburg.....	155,000	Yes.
Bank of Pembroke.....	Pembroke.....	12,222	
Petersburg Savings & Insurance Co.....	Petersburg.....	1,791,634	Yes.
Bank of Phoebus.....	Phoebus.....	233,415	Yes.
Bank of Portsmouth.....	Portsmouth.....	502,168	
Pulaski National.....	Pulaski.....	111,403	No.
Purcellville National.....	Purcellville.....	310,000	Yes.
First National.....	Radford.....		
State Bank of Rapidan.....	Rapidan.....	8,944	No.
People's Bank.....	Reidsville.....	140,000	Yes.
American National.....	Richmond.....	2,362,000	Yes.
Broadway National.....	Richmond.....	214,300	Yes.
Central National.....	Richmond.....	513,299	Decidedly so.
Mechanics and Merchants'.....	Richmond.....	425,000	Yes.
Old Dominion Trust Co.....	Richmond.....	425,583	Yes.
Planters' National.....	Richmond.....	2,764,744	Yes.
Richmond Banking & Trust Co.....	Richmond.....	455,000	Yes.
Savings Bank of Richmond.....	Richmond.....	1,390,000	Yes.
West End Bank.....	Richmond.....	146,534	Steady increase.
Bank of Riner.....	Riner.....	No savings dept.	
Colonial Bank & Trust Co.....	Roanoke.....	300,000	Yes.
National Exchange Bank.....	Roanoke.....	1,924,133	Yes.
First National.....	Rural Retreat.....	No sav. dept.	No.
Bank of Sedley.....	Sedley.....	20,515	Yes.
Bank of Smithfield.....	Smithfield.....	225,000	Yes.
Merchants and Farmers' Bank.....	Smithfield.....	75,000	Yes.
First National.....	South Boston.....	268,895	Yes.
Bank of Greene.....	Stanardsville.....	No sav. accts.	
Farmers and Merchants'.....	Stanley.....	48,000	Yes.
Augusta National.....	Staunton.....	350,000	Some.
Farmers and Merchants'.....	Staunton.....	291,884	Yes.
National Valley Bank.....	Staunton.....	717,810	Yes.
People's Dime Sav. Bk. & Tr. Asso.....	Staunton.....	9,162	Yes.
Planters' Bank.....	Staunton.....	119,900	Yes.
Bank of Stewart.....	Stewart.....	60,000	Yes.
Massanutten National.....	Strasburg.....	120,000	Yes.
People's Bank.....	Stuarts Draft.....	32,000	Yes.
American Bank.....	Suffolk.....	121,804	Yes.
Farmers' Bank.....	Suffolk.....	1,539,000	Yes.
Bank of Surry.....	Surry.....	No savings accts.	
South Side Bank.....	Tappahannock.....	48,265	Slightly.
Tazewell National.....	Tazewell.....	No savings accts.	
Farmers and Merchants'.....	Timberville.....	54,000	Yes.
Bank of Troutdale.....	Troutdale.....	2,000	Yes.
First National.....	Troutville.....	No savings accts.	
Bank of Union Level.....	Union Level.....	No sav. dept.	
Bank of Virginia.....	Virginia.....	25,000	Yes.
Farmers' Bank.....	Wakefield.....	54,262	Yes.
South Side Bank.....	Walkerton.....	10,324	Yes.
Bank of Warm Springs.....	Warm Springs.....	49,547	Yes.
Fauquier National.....	Warrenton.....	446,768	Yes.
People's National.....	Warrenton.....	94,000	Yes.
Northern Neck State Bank.....	Warsaw.....	17,000	Yes.
Rappahannock Bank.....	Washington.....	No sav. dept.	No.
First National.....	Waynesboro.....	No sav. dept.	Yes.
Waynesboro National.....	Waynesboro.....	53,000	Yes.
State Bank.....	West Point.....	5,000	Little variation.
Weyers Cave Bank.....	Weyers Cave.....	38,067	Yes.
Bank of Whaleyville.....	Whaleyville.....	69,942	Yes.
First National.....	Williamsburg.....	167,187	Yes.
Bank of Windsor.....	Windsor.....	45,000	Yes.
Shenandoah National.....	Woodstock.....	75,000	Yes.
First National.....	Wytheville.....	80,000	Yes.

exceeds the cost of all world wars during the same period.

These are facts which bear on economic conditions. They vitally concern the industrial and business development of any country or any section, and the MANUFACTURERS RECORD is justified in reiterating and re-emphasizing the statements from the bankers of the South that whiskey has been a curse, and that prohibition has been a blessing to all the business interests of that section.

In this issue we give the banks reporting from South Carolina, having already published similar reports from Alabama, Georgia, North Carolina and West Virginia, as to the tendency toward increased savings and as to the effect of prohibition, and also the banks in Virginia which have reported as to savings. In the latter State no reference was made as to prohibition's effect, since the law has not yet gone into effect.

### GOVERNMENT RESPONSIBILITY FOR LAW'S DELAYS THAT HINDER DEVELOPMENT.

NEARLY every other process of civilization has been quickened except the process of law. More than 700 cases await final determination in the Supreme Court of the United States. That there are so many cases awaiting decision is not the fault of the court. The cause can be traced directly to the insistence of the Department of Justice upon an appeal in nearly every important case involving the future of an industrial organization. Ordinary litigants frequently accept a unanimous decision from the judges in a lower court; the Government, with its almost limitless resources, seldom does.

The telephone, telegraph, railroads and wireless have all quickened the processes of business. Apparently, however, they have not effected the rate of speed at which justice travels. As an illustration, take the suit against the United States Steel Corporation, which has been pending for years—since early in the Taft Administration, in fact. The Steel Corporation relied upon the word of the President of the United States that it would be within the law to acquire the Tennessee Coal, Iron & Railroad Co., but later the United States Government brought suit, claiming that the absorption was illegal, and the lower court unanimously decided against the Government; but the case was appealed, and since then the development of the Birmingham branch of the corporation has been largely held up, and although the Steel Corporation has vigorously fought to secure an early decision, the Attorney-General has just as vigorously fought for delay, and thus has retarded the iron and steel development of the South.

More than a year ago the *Manufacturers Record* was told by one of the leading Democratic officials of Washington, a personal appointment of President Wilson, that no decision on this case would be rendered until after this Presidential election. Not that the Supreme Court would intentionally be a party to such delay, but that the Government would secure the delay in order to prevent a decision being reached prior to the election. The statement made at that time was fulfilled to the letter by the successful efforts of the Attorney-General to postpone the suit against the vigorous protests of the Steel Corporation, which insisted upon a speedy trial. Comment hardly seems necessary.

The appeal in this suit, which had been delayed for so long a time by the Government, has at last been scheduled for argument at the present session of the Supreme Court.

There are also appeals in the suits against the so-called Harvester, Coal, Moving Picture, Kodak, Bill Poster, Shoe Machinery and Great Lake Towsboats "trusts." The Supreme Court is likely to be kept busy deciding all these appeals, but the business world hopes to have a pretty clear conception of the Sherman law when the session is over. The decrees of the court will have an important bearing upon the economic future of the nation. Progress in the foreign as well as the domestic field will

be largely influenced by the final opinions of the highest court, and at a time when Europe is entering upon an era of business mobilization, combination, kartels and subsidies, the result of the court's action will be epoch-making.

### A VITAL QUESTION, IN WHICH TEXAS IS NOT ALONE CONCERNED.

UNDER the heading, "Why Not Capital for Texas," the *Houston Post* recently said:

The announcement in the dispatches that American interests have closed a contract for a loan of \$60,000,000 to be devoted to the construction of 1500 miles of railway lines in China is interesting, following an announcement last week that since the war began nearly \$100,000,000 of American capital has been invested in South America for general development.

The war loans made to European countries since 1914 aggregate \$1,750,000,000.

Where does Texas come in?

Over half the area of the State is without railroad facilities, and the development of 150,000 square miles of area is retarded because of the lack of railroad facilities.

Railroad construction in Texas has practically stopped, and there is no immediate prospect of an early resumption of it. The immediate cause of this is that no capital is available for railroad development in Texas, and a vast section of the State is practically at a standstill in consequence thereof.

But there is capital in the United States for railroad building in China, for all manner of development in South America and for loans to the belligerents in Europe.

We are told that there was never so much capital in the United States. Money is going begging everywhere at trivial rates of interest, but it is not seeking investment in Texas, nor is it seeking investment in other Southern States in any remarkable degree.

Is it not advisable for our captains of industry, commerce, agriculture, and, above all things, of politics, to look into this situation and ascertain why it is that Texas, with its almost untouched natural resources, no longer offers an inducement to capital to invest within her boundaries?

Many of us remember when capital sought Texas investments, when railroad construction was the order of the day in all sections of the State, when money, brain and brawn were conquering the vast vacant areas of the State. Why has all this stopped before half the State has been supplied with transportation facilities?

Surely the latent resources of Texas must be as appealing to capital as ever. The fact still remains that the State is capable of sustaining a population of 50,000,000, whereas it has but 5,000,000. We still have not fewer than sixty counties without railroad facilities at all. We still have vast deposits of iron ore. We have millions of acres of fertile land that has never felt the point of a plow.

But that inflow of capital has stopped when there is an abundance of capital in the country.

How does it happen that capitalists prefer to invest their money in China or South America, or even in war loans, when Texas offers such inducements?

The *Post* thinks it is important for the leaders in Texas to ascertain the reason.

One thing is certain: Unless Texas can obtain capital for purposes of development, the people of Texas must create their own capital. Otherwise a very large area of the State and very many resources of the State will not know much of development in our day and generation.

It is a hopeful sign when Southern newspapers of such standing as the *Houston Post* thus frankly concede the necessity for a change of attitude toward capital and business. Well may it call upon "the captains of industry, commerce, agriculture and, above all things, politics," to seriously consider why railroad building in Texas has practically ceased, and why the inflow of capital has stopped. And not in Texas alone do conditions warrant introspection of this sort. Wherever in the South development has been halted and capital investment slackened down or ceased it is high time that the people should squarely face the question as to who is at fault.

Manifestly there is something inherently wrong when a great State like Texas—magnificent empire that it is in variety and richness of natural resources as well as in extent—finds ground for complaint that 60 counties are without railroads, and that almost none are being built; that millions of fertile acres there have never known the plow; that vast mineral resources remain undeveloped, while American money is piling up in the banks and begs investment in railroads in China and in South American development work.

It is easy to single out for censure the demagogues in politics—those who are in office and those who are trying to get in; but there is no fact more patent at this time than the spineless character of politicians generally, rank and file. Currying favor with the people is their stock in trade.

Whatever they think the voters want, that they hasten to give, irrespective of the justice, wisdom or even constitutionality of the act involved.

The crying need of the hour, therefore, is really a deeper sense of responsibility on the part of the people themselves—an awakening to the fact that the welfare of the State and the destiny of the nation are wholly theirs, to ruin or conserve. Until the great body of the people come to realize that unless they are right the politicians will not be right, that nothing will be right, and that development will not proceed as it should, it is idle to complain that the acts of politicians are stunting the country's growth. So long as the rankest business baiter gains the loudest roars of approval on the hustings; so long as the voters encourage politicians to denounce as "robber barons" men with ability to manage and direct railroad and other corporations and permit them to be made the special objects of legislative attack, there can be no relief from the conditions complained of by the *Houston Post*.

With all the deluge of legislative acts passed in recent years to "regulate" business, often at the expense of the security investors, with the pretended motive of benefiting society at large, there has never yet been devised any plan or law by which a man with means can be compelled to invest his money in railroad construction or any other kind of development work in any community or State whose friendliness or fairness he has reason to suspect. Safeguard the investment, and money always flows toward it in a stream.

### HELPLESS, AT HOME AND ABROAD, WITHOUT A PROTECTIVE TARIFF.

THERE is no longer any question of the importance of the economic alliance of the Entente Allies as drawn up in the agreement at the Paris conference early in the present year. Investigation reveals the fact that the United States in the last normal year before the war, 1913, sent 77.61 per cent. of its exports to the belligerent countries and derived 72.83 per cent. of its imports from them. Therefore, any sweeping change of tariff, navigation or financial policy of either group of Allies may seriously affect the prosperity of the United States, in which the foreign trade is a vital element.

If the members of either the Allied or Central Economic Alliance seek by differential tariffs to prefer each other and their respective colonies, a discrimination against the products of the United States will automatically be created. If special shipping arrangements are carried so far as artificially to create lower freight rates for Allied than for neutral commerce, the parity of ocean freight charges to and from American ports as compared with, to and from European ports, which has been one cause of toleration of American dependence upon foreign carriers, will be disturbed. Whatever may be the result of these tariff resolutions, manufacturing enterprise in the Allied countries looks forward to preferential advantages in those countries which have shared the burdens of war.

Recently the National Foreign Trade Council, composed of 50 nationally prominent merchants, manufacturers, bankers, farmers, railroad and steamship men, investigated the probable effect of the European economic alliances upon the commerce of the United States. In the report that has been made the question is raised whether the Entente Allies or the Central Powers will continue to accord most-favored-nation treatment to the United States, or will demand exclusive concessions under the American tariff as the price of favorable admission of American products to other markets. The present tariff law is described as barren of resources of either concession or retaliation, and under it there is no foundation for making agreements for the protection of the American market.

While no conclusion is reached by the report, it serves an excellent educational purpose, and should show the country the necessity for restoring the protective tariff, which will not only equalize the difference in the cost of production at home and abroad, but will likewise provide a basis for reciprocal trade agreements.



## Abounding Prosperity in Georgia Under High Prices for Cotton

OVER MILLION DOLLARS RECEIVED BY FARMERS AROUND VALDOSTA, WHO  
PAY OFF OLD DEBTS AND BUY COMFORTS OF LIFE.

By REV. ALEX W. BEALER, Valdosta, Ga.

[The great prosperity that high-priced cotton has brought to Georgia farmers is interestingly told in a letter herewith from Valdosta. At the time the letter was written Sea Island cotton had sold at 34¼ cents a pound, or \$171.25 a bale for lint alone, and these prices had brought to the entire community a wave of prosperity greater than ever before known. Since that time the price has advanced still further, 40⅞ cents, or over \$200 a bale, having been the highest price reached, and still higher prices are expected by some.]

In the story related a significant point is made of the thrift of the people under prohibition. Money that negroes and others heretofore squandered for whiskey is now being applied to paying off old debts and to provide the comforts and even the luxuries of living.

The writer, Rev. Alex W. Bealer, is pastor of the Baptist Tabernacle of Valdosta, Ga. He writes that whiskey was doing so much harm among the laborers that the people, before prohibition came to Georgia generally, voted the whiskey traffic out of the town and county. The story shows the good use under prohibition to which people are now putting the fruits of prosperity.—Editor Manufacturers Record.]

Valdosta, down among the wiregrass and pines of Lowndes county, one of the first towns in Georgia to outlaw the whiskey traffic, is on the crest of a tidal wave of prosperity greater than it has ever known. Business in all lines is booming, and there is more money in circulation than has been turned loose before in the last 20 years. Indeed, several of the popular stores have kept the office force so busy receiving and receipting for money that it reminds one of the last day for paying taxes to the official appointed to handle the money.

This great flood of prosperity is all due to the sea island or long staple cotton. This is the biggest market in the world for the staple, and the good Lord has sent such a favorable season upon us that it has opened rapidly, and as fast as it opened black fingers were waiting to pick it out and gins were running to separate the seed from the lint. Today a bale of sea island cotton is worth almost as much as a bale of silver certificates, for the top of the market has been reached and the choice grade is sold for 34¼ cents a pound.

It sounds almost too good to be true—like a fairy story—when I say that in the last 40 days \$1,150,000 has been received by the farmers, mostly those in Lowndes county, for their cotton. And they have not hesitated to use it to a good advantage. Most of them went first to the banks to deposit their money, so that they could check out as they needed it. One of the banks here took in on deposit one day this week \$268,000. It requires six banks to handle the money that comes into Valdosta, and they all do a good business. The combined deposits of all these banks runs pretty close to \$5,000,000. Valdosta, a city of only 15,000 people, ranks fifth in the State in banking resources, only Atlanta, Savannah, Macon and Augusta being ahead of it.

As soon as the farmers deposited their money they began to think of something to eat. Many of them had long been living on short rations, and they decided to lay in a supply of good things for the inner man. All of them had from 10 to 25 cotton pickers and other hands, for whom they had been buying rations on credit. They paid their bills and then bought new supplies for cash. This started a boom in the grocery trade, and then many began to pay up their guano bills, and that branch of business struck a double-quick trot. A banker told me that one guano concern deposited from \$25,000 to \$30,000 a day several days this week.

"Some folks say that you never find an honest negro," said a guano man in talking about the flush times, "but that's a mistake. Within the last week I had several negroes come in and pay up in full bills they owed for guano bought in 1910. They didn't have the money until recently. They formerly spent much of it for whiskey."

"You are right," added a dry goods merchant, "I sold an old negro \$200 worth of goods in 1911. He was not able to pay a cent on the bill, and when we balanced our books at the close of last year, considering the bill worthless, we charged it off on the profit and loss ac-

count. The old man has been buying a little ever since, for which he has always paid cash. This week he bought a bill for cash and then counted out \$50 more to put on the old dead account. It was like picking it up in the road."

The negroes will not soon forget the fall of 1916. They are having as good a time as if it was Christmas. Every Saturday they come in by the hundreds, and they always carry home a wagonload of something good to eat instead of wasting their money as they used to do when the saloons were here. They feast every Saturday night and all day Sunday, even if they have to skimp the rest of the week. Many of them are buying furniture, and, of course, much of it is far too handsome for a cabin home. One woman bought a handsome three-piece bedroom suit. The dresser was quite heavy, and she was very proud of it.

"What you gwine do wid dat furnichure, nigger?" asked a man, a friend of the family.

"I gwinner put dat dresser out on the front poach o' de cabin till de cole wedder comes. Hit's too dark in de cabin. Hit won't show up dere. I wish I could put de bed out dar, too, but you know we caint sleep on de front poach."

A country negro and his wife went into one of the department stores and asked to look at coat suits for the woman. The salesman showed her his cheap suits, but she turned away in disgust and asked to see the best he had. She ended up by selecting a \$45 coat suit and a fancy pair of shoes costing \$8. The husband pulled out a roll of tens and twenties as big as his arm and peeled off as much as he wanted, as if such purchases were an every-day occurrence. The merchant said to me that the country negro women used to pay from \$1.50 to \$2 for shoes, but now he can sell them nothing except those that run from \$6 to \$8 a pair.

The old adage that a fool and his money are soon parted holds true with some of the whites as well. A green-looking country youth walked into one of our clothing stores this last week and bought a silk shirt, the best one in the house, for which he paid \$6 that he had plowed for out in the cotton patch.

I stood near the cashier's desk in a large dry goods house when a very insignificant-looking negro man came in. The cashier knew him and greeted him pleasantly. He asked for his bill. It amounted to \$200. He pulled out a very fat pocketbook, paid the bill, got a receipt, went over to the office of a guano man, paid him \$100 and then walked out with quite a good-sized wad in his pocket. The collections of this dry goods house from the country customers for one day this week amounted to \$2000.

The automobile dealers are bringing in cars by the dozen, and many farmers are discarding Fords and buying higher-priced cars, while many new Fords are being put upon the roads that are already crowded with them, almost to the point of congestion on Saturday morning and Sunday afternoon. Quite a number of white men in the country are running jitney busses to town every Saturday, and they are always filled with

negroes. They come from 20 miles away, paying \$2 for the round trip. Some of these jitney men have employed help, so great is the demand for transportation made by the negroes. When a negro gets money he first buys something to eat, and if the weather is cold he buys some clothes and then he must take a ride on the train or in something else that will run rapidly.

The farmers have not as yet begun to buy clothing and dry goods as they will later on. The weather has been too warm. As soon as the frost falls they will flock into the clothing stores, and business with them will be booming. Money that used to go for whiskey now goes for necessities and comforts.

### PLAN TO COLONIZE BELGIAN MINERS.

F. C. Cornet, Native of Belgium, Proposes to  
Permanently Locate 100 Families at Some  
West Virginia Point.

A project is under way to locate a colony of Belgian miners in West Virginia. Mr. F. C. Cornet, consulting and mining engineer and geologist of Charleston, is the originator of the proposition.

Mr. Cornet is himself a native Belgian who has been living in this country for a number of years, but who has maintained close relations with his native country through frequent trips to his former home, and he is thus equipped to undertake the colonization project on a practical basis.

In describing the details of his plan, Mr. Cornet has written to the MANUFACTURERS RECORD as follows:

"A colony of Belgian miners for West Virginia is a probability of the near future. Although no definite location has been selected yet, several sites are under consideration—one on the Chesapeake & Ohio Railway, one on the Coal & Coke Railroad and one on the Western Maryland Railway. Whatever location is finally decided upon, it will be one where work is plentiful at all times of the year.

"The idea is to induce 100 desirable families to come to this country, where they will be installed on land and in cottages that will in time automatically become their own. A small barn and cow shed, erected well in the rear of each cottage, will be features of the scheme. A church and parsonage, water-works and sewerage are also included in the plans. The plot of ground upon which each cottage will stand will be sufficiently large to enable the occupants to grow all the garden produce and potatoes they need.

"It is not intended to simply provide a temporary refuge for a few hundred persecuted persons who would stay there only until some smooth-tongued labor agent would make his prey of them. The purpose is to found a lasting community of law-abiding citizens, attached to their new homes and country, who will soon become prosperous and independent, who will be an example of thrift and industry to the surrounding region.

"The colonists will probably come over in groups of 20 or 25 families at a time, depending on the progress that will be made in building the town, which will be called Belgia. It is expected that Belgia will be on the map of the United States before the end of the year 1917, although it may not reach its full development until the war is over, when the younger men, discharged from the army, will join their elders who will have preceded them to America.

"This colonization idea, which is meeting with a great deal of encouragement from all parts of West Virginia, is promoted by the undersigned, who will be glad to answer all inquiries on the subject.

"F. C. CORNET."

### \$800,000 Pulp and Liner Mills.

Final details have been determined for the 60-ton pulp mill and 100-ton container liner plant, costing \$800,000, announced last June as to be built by the Great Southern Lumber Co., Bogalusa, La. Construction was begun during the past week, and several acres will be required for the site. The buildings will be of creosoted timber factory construction, with brick walls, costing \$200,000, and the machinery will cost \$600,000. The product will be manufactured entirely from the waste of the company's sawmill.

## Exporting Cotton Goods Without Intermediate New York Commission Houses

By SAMUEL BISPHAM KOONS, The Bourse, Philadelphia, Pa.

The Southern States, being endowed with both raw material and cheap water-power, should offer to capital a remunerative form of investment for many years to come in the establishment of new cotton mills.

With a growth of population in this country, now averaging 2 per cent. annually, and with the possibility of an enlarged export trade, if properly handled, there is assured an increasing demand for cotton textiles which makes a most substantial basis for the promotion of new cotton mills.

It has been the custom, when organizing new cotton mills, to make an arrangement with some New York, Philadelphia, Boston or Western commission house whereby it is given the selling of the entire output of the mill. Quite frequently the commission house will furnish capital by purchasing a stock interest in the new mill, but in other cases the only relation is that of a selling agent. Whilst such a plan is highly desirable for the mill, in so far as domestic sales are concerned, it proves disadvantageous for export trading.

The dry goods commission houses, with few exceptions, have had but little experience in the development of direct export, so that whatever export trade they may enjoy has been acquired through a long period of years by indirect methods.

In order to comprehend the processes and the intermediate factors involved in selling textiles for export, let us assume the case of an old-established cotton mill which is having, through its commission house, an indirect trade with Australasia.

The Australasian jobber will file an order for the mill's brand with a local "indent house," the latter receiving from the jobber a commission of, say, 2½ per cent. for executing and financing the order. The "indent house" transmits the order to a New York correspondent, usually a general export concern, and the commission is divided between these two factors. The New York correspondent, or the export concern, makes a purchase, to cover the order from the New York commission house representing the cotton mill, and generally receives a commission of about 1 per cent. The goods are then sent with a sight draft, documents attached, to the Australasian indent house, and as the draft is discountable at New York, the export concern pays the commission house for the goods out of the proceeds of the discounted draft.

The disadvantage of this method is because of the fact that the foreign indent house, handling practically every kind of merchandise, has neither the time nor the inducement to make a special sales effort on any particular brand or product. The plan is manifestly inefficient, since there is no one on the ground in the foreign country having a sufficient interest in the particular brand of piece goods to go out and actively push it.

An analysis of the cost of selling for export in this country will show that the American mill has too much of a handicap in commission charges. The New York dry goods commission house receives from mills on certain classes of piece goods, in addition to an allowance for cash discounts, a maximum commission of 5 per cent. Taking into consideration the 1¼ per cent. which the New York export concern gets from the foreign "indenter," it makes a maximum selling expense on the goods for export before they leave the country of 6¼ per cent.

A good many of the British colonial houses maintain purchasing offices in London and Manchester, some of which offices are actually owned by them, while in other cases it is purely a commission arrangement. It was formerly the universal custom and it still remains to a large extent the practice of British cotton mills to sell the Australasian and other export trade through London and Manchester, the soliciting being done for the mill by selling agents at those cities working on commission.

The plan of selling locally to the export trade in the United Kingdom is altogether in favor of the old-established mills, because the ultimate consumer in the foreign lands had come to know their brands, and therefore a natural disinclination exists to take up new and

unknown brands so long as old-established brands are obtainable.

Increasing activity on the part of German competition finally led progressive newly-established British mills into the undertaking of making their own direct agency connections in the colonies and foreign countries generally.

In shipping to Australia the British mill or exporter receives a preferential tariff of 5 per cent. Comparing, therefore, the American practice, involving a total maximum selling cost at this side before the goods leave this country of 6¼ per cent., plus the 5 per cent. differential import duty, it places the American textile mill at a maximum disadvantage of 11¼ per cent. on Australian trading as compared to the best competitive British practice.

The investigations made by the United States Government several years ago proved that, by reason of the automatic loom being so extensively used in this country, the cost of production per loom on certain classes of cotton piece goods was actually lower than that of the average British mill making similar goods. Now, the relatively slow progress of the automatic loom into the United Kingdom has been almost wholly due to the successful opposition of British labor unions, but that situation is likely to be changed as one of the results of the war. Another factor which will tend to hasten a more general adoption of the automatic loom is Japanese competition, which by greatly cutting into Manchester trade on coarse cotton goods has forced the British mills to develop business in the Far East on finer count goods. One has only to read the current issues of British textile journals to find the opinion expressed that the war is to be followed by an era of intense industrial strife, and that the British manufacturing and exporting methods must be improved to meet new conditions.

It should be manifest to anyone making an analysis of the situation that if the volume of American textile exports is to be maintained, not to say increased, there should be a radical improvement in selling methods. Any improvement should not merely contemplate the reduction in export selling costs, but should also aim to bring about greater efficiency in introducing new trademarks into foreign countries.

The first requirement in any export endeavor should be that of making connections with foreign textile selling agents in the foreign countries, preferably with those agents having an established clientele and upon whom reliance can be placed for a certain amount of good-will or friendship on the part of the larger buyers.

After the appointment of agents in a foreign country comes the consideration of terms of payment.

There are a number of different ways by which the foreign buyer may pay for goods and which may be described in the following order: The London-Manchester jobbing dry goods houses positively refuse to buy on any other terms than "open account," which method of payment usually prevails, in normal times, in certain of the Continental European countries. The requirements for the South American trade varies from indenting transactions to sight and acceptance drafts. The Australasian jobber prefers sight drafts, but indenting largely prevails, and the latter is the general method for the Indian and South African trade.

As the larger foreign dry goods importers are generally financially strong and have exceptionally high commercial ethics, there is no reason why the American cotton mill should not grant either the sight draft or acceptance draft terms, since such drafts are discountable by banks in this country. For mills which may wish to confine their transactions to a cash payment at this side or before the goods leave the country, there are both the indent and the letter of credit forms of payment. Since the system of indenting has been described in the foregoing, it suffices here to add that where the mill has its own agents in the foreign field, creating the business, the mill should not pay any commission whatsoever to the New York export concern who receives the indent, because the mill has agreed to pay its own foreign agent for actually making the

sale and the foreign buyer has agreed to pay the indenter a commission for transmitting and financing the order.

"Letter of credit" means that a foreign buyer or connection will give some American bank, generally one at New York, authority to make payment for a specified purchase upon the presentation of certain necessary documents, such as invoices, ocean bills of lading, insurance policies, etc.

When the foreign agencies have been placed and the terms of payment decided upon the last step is that of selecting a New York forwarding agent. Quotations should be made, wherever possible, in American dollars f. o. b. New York steamer, which means, in addition to freight to New York, the cartage at New York and a nominal fee for the forwarding agent. On all shipments other than indents the mill ships the goods to its selected forwarding agent at New York, which latter engages ocean freight space and hauls the goods to the steamer's dock. Since ocean steamers will not accept goods unless the freight is to be prepaid, it is customary for the mill to authorize its forwarding agent to prepay the freight and insurances for the mill's account. The documents, consisting of ocean bills of lading, paid ocean freight bills, insurance policies, etc., are then sent by the forwarding agent to the mill, which, after endorsing the necessary documents, hands them to its local bank with a draft for the full amount of the invoice, plus ocean freight and insurance costs. The local bank credits the mill with the amount of the draft as a deposit and sends the draft, with documents attached, to the New York bank, which holds the credit and pays the draft.

Selling agents in foreign countries, as a rule, simply sell on a brokerage, the goods to be invoiced against the buyer by the mill and payments to be arranged as required by the mill.

There are some foreign agents who are willing to guarantee the payment of sight drafts against their customers, while other agents are disposed even to finance their orders cash at New York by means of letter of credit.

The financially responsible foreign selling agent, under normal conditions, insists upon operating directly with the mill. These financially responsible foreign agents maintain that as they agree to sell the goods, guarantee the accounts and sometimes arrange payments at New York, before the goods leave this country and long before they reach the buyer, they fulfill all the functions of the mill agent. They assert that they are entitled to act as the direct foreign mill agent, since they are distinctly adverse to being expected to pay what they term "an export tax" of 3 or 4 per cent. to some New York dry goods commission house.

The advantage of the cotton mill having its own foreign agents right on the ground in each foreign country, as compared to the old-established mill which has no foreign agents, but which relies upon orders filtering through indirect channels, should be readily apparent. The direct selling cotton mill is able, by the elimination of the commission which would ordinarily go to some New York dry goods commission house, to offer a sufficient inducement to its foreign agents to justify them in making energetic and sustained efforts to introduce the brands of the new mill and to gain trade at the expense of old-established mills which lack local exclusive representation in the foreign country.

A responsible new cotton mill, therefore, working upon a direct export basis, with its own exclusive agents in the foreign fields, will naturally gain relatively much more rapidly than the old-established mills working through indirect methods.

The new mill which adopts direct export methods will experience less competition abroad than in introducing its new brands to the domestic trade, because in this country, under normal conditions, it cannot make satisfactory headway against established brands except by initially shading market prices.

Since a large proportion of the existing Southern cotton mills have agreeable relations with New York, Philadelphia, Boston or Western dry goods commission houses, they are naturally reluctant from sentimental, if for no stronger reasons, to entertain the idea of direct export. A new cotton mill, however, when making its domestic selling arrangements, should be in a position to adopt certain brands exclusively for export and to reserve the right to sell them direct.

If the South desires to enlarge its exports of textiles it must look more to the cotton mills of the future rather than to those of the present.



# To Establish Iron and Steel Industry at Texas City

COMPANY OF SUBSTANTIAL BUSINESS MEN HAVE MATTER IN CHARGE—  
INTERESTING DETAILS OF PLANS PROPOSED.

From information at hand it would seem that the plan to establish an iron and steel plant at Texas City is taking definite, tangible shape. Announcement was made in the MANUFACTURERS RECORD recently that the Texas Resources Co. had been organized, with Capt. A. J. Wolvin of Duluth as president, and plans are in process of completion for the erection of a 250-ton furnace at Texas City. The ore will be obtained from the iron-ore fields of Northeastern Texas.

Details of the company's plans are given at some length in a letter which the MANUFACTURERS RECORD has just received from Dr. Wm. B. Phillips of Austin, Tex., a well-known mining engineer and metallurgical expert. Dr. Phillips has been elected a director of the Texas Resources Co., and it is considered probable that he will be in charge of the technical affairs of the new company.

The officers and directors are well known and successful business men, having large interests in Texas and elsewhere, and with this backing it is considered entirely probable that the plan to finance the company through the sale of lots in Texas City will be successfully carried out.

This development is entirely distinct from the enterprise of which Col. L. P. Featherstone is the head. Colonel Featherstone and associates own outright ore fields in Northeastern Texas, which are said to contain about 150,000,000 tons of iron ore. A company has been organized to develop these fields, building a furnace either at Beaumont or in the fields.

With both these companies in operation, the start will have been made toward the development of a highly important iron and steel industry in Texas. In both cases it is the intention to begin operations with a blast furnace, and to proceed from pig-iron to steel billets and then shapes and rails as rapidly as conditions warrant.

The information contained in the letter of Dr. Phillips to the MANUFACTURERS RECORD is as follows:

"The Texas Resources Co. owns 12,000 lots in Texas City and 9000 acres of iron-ore lands in Northeast Texas, together with the Jefferson furnace at Jefferson.

"Plans are now being considered for financing the company through the sale of Texas City property and the stock of the company. It was reported at the meeting that the Government work of deepening the channel to the Texas City docks and piers was now almost completed. This will give a depth of 30 feet at the piers, the channel being 300 feet wide at the bottom. I am informed that this work has cost nearly \$2,000,000. The practical result will be that Texas City will have perhaps the best inland harbor from Newport News to the mouth of the Rio Grande.

"The value of the export trade through Texas City has been as high as \$64,000,000 in a year, but is now about \$35,000,000.

"The valuation of the Texas City lots held by the Texas Resources Development Co. is now about \$2,300,000. The original valuation, as fixed by appraisers not connected with the company, was \$2,880,000. Since that time the sale of lots has amounted to something over \$600,000.

"The iron-ore lands are in the counties of Cass and Marion, Northeast Texas, immediately on the line of the Missouri, Kansas & Texas Railway and the Jefferson & Northwestern Railway. To haul the ore to Texas City involves a distance of about 300 miles. The ore will be delivered to the Texas & Pacific Railway at Jefferson, and by it transferred to the International & Great Northern Railway at Longview. From Longview the traffic reaches Texas City by way of Palestine and Houston.

"No through rate on this ore has yet been established, but it cannot well exceed \$1 a ton, seeing that this

was the rate established for Port Bolivar, across the bay from Texas City, when there was some effort made to supply east coast furnaces with Texas ore several years ago.

"As is well known, of course, the East and Northeast Texas iron ores are brown ores (limonites). Shipments of several thousand tons to the Birmingham district and to Philadelphia a few years ago averaged about 57 per cent. in iron. These shipments represented ore that had not been washed or calcined or subjected to any process of improvement. In regular operations, however, calling for 500 to 1000 tons of ore per day, the "bank" material will have to be washed or otherwise treated. The long haul to Texas City, 300 miles, will necessitate the transportation of as little waste material as possible, so that the preparation of the ore prior to shipment is a most important consideration. The earth, clay, sand, etc., with which the ore is associated will have to be removed, and, in addition, the ore should be calcined. The ordinary water and the combined water in the ore will amount to at least 15 per cent., so that for each 1000 tons shipped freight would have to be paid on 150 tons of water if the ore is not dried and calcined.

"As mined, the 'bank' material carries about 32 per cent. of iron. The proportion of usable ore to waste varies from 1 to 2 to 1 to 3, and even more, according to circumstances.

"The amount of usable ore on the 9000 acres of ore lands has been stated by responsible engineers to be about 30,000,000 tons, which represents a yield of something over 3000 tons per acre.

"The cost of mining and treating this ore will vary from 75 cents to \$1 a ton, so that the cost at Texas City will be from \$1.75 to \$2 for an ore to carry not less than 50 per cent. of iron.

"The Texas Resources Co. does not now own any coking coal lands. The coking coal will have to be brought in from Alabama, possibly down the Black Warrior River to Mobile and thence by barges across the Gulf or through the Intercoastal Canal. I am unable to state just now what the cost of this coal will be at Texas City, although some tentative offers have been made at \$2.50 a ton.

"The plans of the company include the erection of by-product coking ovens at Texas City, the surplus gas to be used at the plant or converted into electric power, the tar to be distilled locally and the sulphate of ammonia recovered, together with benzol, toluol, etc.

"The present officials of the company are:

President—A. B. Wolvin, Duluth.  
Vice-President and Treasurer—H. B. Moore, Texas City.  
Second Vice-President—H. H. Dickson, Houston.  
Secretary—H. A. Thomas, Texas City.  
Auditor—R. B. Smith, Texas City.  
Directors—A. B. Wolvin, Duluth; H. B. Moore, Carl Nessler, H. A. Thomas, Texas City; W. T. Armstrong, Galveston; H. H. Dickson, John H. Kirby, J. M. West, J. F. Wolters, R. S. Sterling, Hugh Hamilton, L. C. Luckel, A. S. Vandervoort, J. W. Reynolds, Mr. Collier, Tom H. Stone, Houston; Wm. B. Phillips, Austin; J. B. Cotton, 120 Broadway, New York.  
Executive Committee—A. B. Wolvin, John H. Kirby, H. H. Dickson, H. B. Moore, R. S. Sterling, J. M. West and J. B. Cotton.

"Several years ago, when I looked into the matter carefully, I found that the consumption of pig-iron as such in Texas was about 250 tons a day. This iron came from Alabama, Kentucky, Ohio, Pennsylvania and Colorado. Since that time the consumption of pig-iron in the State has risen to about 400 tons a day. It would appear that the local demand for pig-iron is considerably in excess of the capacity of a 250-ton furnace.

"The manufacture of cotton ties, wire fencing, wire nails, perforated metal, reinforcing bars for concrete work, etc., is a matter to be taken up at the proper time.

"The proximity of the Jefferson furnace to the manganese deposits in Arkansas adds some interest to the possibility of making ferro-manganese or spiegel at that point."

## MEAT-PACKING PLANT FOR TIFTON, GA.

Business Men and Farmers Co-operating in Plan—Further Industrial Development Under Way.

Tifton, Ga., October 16.—[Special.]—A meat-packing plant at Tifton was assured when at a meeting of the business men \$100,000 was pledged for the capital stock, provided the farmers in tributary territory will raise \$50,000. The farmers are allowed to pay for their stock in hogs within one year from date.

The plant is to cost about \$100,000, and will have a daily capacity of 300 hogs, but built so that this capacity can easily be increased at a slight outlay to 800 hogs a day. The promoters are headed by Frank Scarborough, broker; H. H. Tift, E. P. Bowen, W. W. Banks, vice-president of the Bank of Tifton, and M. E. Hendrey, cashier of the National Bank of Tifton. Banks, Tift and Bowen agreed to underwrite \$60,000 of the capital stock if the business men of Tifton would raise \$40,000. This has been done.

A whirlwind campaign is under way this week to raise the necessary \$50,000 of stock among the farmers. The promoters feel that the farmers must take sufficient interest in the enterprise to invest their money in it in order to insure its success.

As soon as the stock is subscribed and organization perfected steps will be taken to erect the plant, which will be ready for operation early in the fall of 1917.

In connection with the erection of the meat-packing plant, conditional thereto, the Central Grocery Co., wholesale grocer, through its manager, B. Y. Wallace, will put in a plant for the manufacture of stock feed from corn and velvet beans at Tifton. A flour mill also is promised, provided the acreage in wheat this fall will warrant.

Because the erection of the mill is conditional on the packing plant, the capacity and cost have not been determined, although the cost will probably exceed \$35,000. The mill will be of the latest model and of a capacity sufficient to take care of the corn and velvet bean crop of this section. As it will be built by wholesale grocers who will act as distributors, the problem of finding a market has already been solved.

Tifton is to have a peanut-oil mill ready for next fall's crop. The mill will manufacture oil and peanut by-products. It will be put in as part of the equipment of the Planters' Cotton Oil Co., which at present manufactures cottonseed oil and by-products. It is estimated that the additional machinery and equipment necessary for the handling of the peanuts will cost \$10,000. J. H. White, manager in charge, expects to have a plant of sufficient capacity to take care of the peanut crop of this section. The Planters' Cotton Oil Co. and its connection has guaranteed a market to the farmers of this territory for all the peanuts they will raise.

## More Space Taken for Next Chemical Exposition.

That the Third National Exposition of Chemical Industries will be a great success is already assured. An additional third floor has already been engaged, and plans are being made to use the fourth floor. In addition, it is hoped to have large sections showing the resources of the country awaiting development.

Two prizes have been offered to the students of Cooper Union Art Schools for a poster seal for the next exposition. The designs will be finished January 1, and prizes awarded February 1.

## Canada's Increased Importations of American Print Cloths.

A very marked increase of Canada's importations of American cotton prints is shown in a report of Consul Felix S. S. Johnson, Kingston, Ontario, under date of October 3. For the year ending June 30, 1916, the importations were 12,516,113 yards, valued at \$1,448,413; for 1915 they were 5,772,629 yards, valued at \$541,346, and for 1914 they were 4,073,668 yards, valued at \$424,109.

## MUNICIPAL EXPERTS HOLD RECORD CONVENTION.

### New Orleans Selected for 1917 Meeting.

[Special Correspondence Manufacturers Record.]

Newark, N. J., October 14.

With an attendance of nearly 500, including representatives from 134 cities in the United States, six cities of Canada and several foreign cities, the twenty-third annual convention of the American Society of Municipal Improvements, held in Newark, N. J., this week, goes on record as the best attended and one of the most interesting ever held in the history of this organization.

The purpose of this society is to be of direct advantage to all municipal officials, advisory experts and those who have to do with the design, construction and maintenance of the physical features of a modern city and with its government.

Through special committees all phases of municipal work are covered in a way to be of the most direct benefit to those especially interested in particular branches of municipal work. Some idea of the scope of subjects handled by the society can be had from the following list of committees, which held special meetings and made reports to the general meeting:

Standard Tests for Bituminous Materials. A. H. Blanchard, chairman, Columbia University, New York City.

Water Supply. J. Walter Ackerman, chairman, chief engineer of water-works, Auburn, New York.

Municipal Legislation and Finance. F. J. Cellarius, chairman, civil engineer, Dayton, Ohio.

City Planning. G. A. Parker, chairman, superintendent of parks, Hartford, Conn.

Street and Sidewalk Design. E. A. Kingsley, chairman, consulting engineer, San Antonio, Texas.

Refuse Disposal and Street Cleaning. E. R. Conant, chairman, chief engineer, Savannah, Ga.

Parks and Parkways. N. S. Sprague, chairman, chief engineer, Bureau of Engineering, Department of Public Works, Pittsburgh, Pa.

Traffic and Transportation on a Proposed Standard Form of Making Traffic Counts. J. C. Hallock, chairman, engineer in charge of port, Newark Terminal, Newark, New Jersey.

Sewerage and Sanitation. George A. Carpenter, chairman, city engineer, Pawtucket, R. I.

Street Paving, on Present Practice Regarding Replacement of Cuts in Pavements. Horace Andrews, chairman, consulting engineer, Albany, New York.

Standard Specifications. George W. Tillson, chairman, consulting engineer to the Borough President, Brooklyn, N. Y.

Standard Forms. A. Prescott Folwell, chairman, New York City.

Street Lighting. F. G. Lynch, chairman, city engineer, Erie, Pa.

Fire Prevention. Alcide Chausse, chairman, city architect and superintendent of buildings, Montreal, Quebec.

Through these committees are gathered together a wide range of data and information bearing upon the particular phase of public work to which each is devoted, and at the same time continuous efforts are made to so standardize the class of work that the members of the Society may have constantly before them information that will be of the greatest benefit in planning their work.

Quite a number of interesting papers dealing with almost every class of municipal improvement were read and discussed at the sessions of the society. The full list of these papers, some of which were illustrated, is as follows:

"The Engineer and the Public: A Discussion of the Work of Bureaus of Municipal Research and State Leagues of Municipalities," by Edward T. Paxton, secretary, Bureau of Municipal Research and Reference, University of Texas, Austin, Texas.

"Relation of State Boards of Health to Municipal Improvements," by Paul Hansen, chief engineer, State Board of Health, Springfield, Ill.

"The Relation of Improvement Commissions and the Public with Municipal and Civil Authority," by William Penn Sifer, consulting civil engineer, Philadelphia, Pa.

"City Management," by C. A. Bingham, general manager, Norwood, Mass.

"The Scientific Cleaning of Settling Basins," by Alexander Potter, consulting engineer, New York City.

"Highway Construction in the Northwest," by George C. Warren, Boston, Mass.

"Disposal of Garbage; a Large City's Problem," by L. L. Tribus, consulting engineer, New York City.

"Garbage Collection and Incineration in Sewickley, Pa.," by Edward E. Duff, borough engineer, Sewickley, Pa.

"Practicability and Comparative Cost of Collection Garbage and Refuse with Motor-driven Apparatus, as Compared with Horse-drawn Apparatus," by B. F. Miller, Jr., city engineer, Meadville, Pa.

"A Paper on Garbage and Refuse Disposal," by Gustave R. Tuska, consulting engineer, New York City.

"Some Public Health Aspects of Refuse Collection and Disposal," by Chas. Saville, director, public health, Dallas, Texas.

"Street Cleaning of Savannah, Georgia; Method Employed; Cost Data, etc.," by E. R. Conant, chief engineer, Savannah, Ga.

"Problems and Methods in Snow Removal and Disposal," by H. S. Richards, superintendent, maintenance and repair, South Park Commissioners, Chicago, Ill.

"Flushing; Its Place in the Street-cleaning Field," by Raymond W. Parlin, Bureau of Municipal Research, New York City.

"American Park Systems," by Lawrence V. Sheridan, Bureau of Municipal Research, New York City.

"Care of Birds in Public Parks," by H. S. Richards, superintendent, maintenance and repair, South Park Commissioners, Chicago, Ill.

"Necessity for Limiting the Loads, Speed and Size of Vehicles," by E. W. Stern, chief engineer, in charge of highways, Borough of Manhattan, New York City.

"Sewage Treatment by Aeration and Activation," by George T. Hammond, engineer of design and in charge of the Sewage Experiment Station, Bureau of Sewers, Borough of Brooklyn, New York.

"A Year's Progress in Activated Sludge Sewage Treatment," by T. Chalkley Hatton, chief engineer, Sewerage Commission, Milwaukee, Wis.

"A Few Figures on the Building and Operation of the Baltimore Disposal Plant and Notes on Activated Sludge Experiments," by Gustav J. Requardt, engineer, Norton, Bird & Whitman, consulting engineers, and formerly acting division engineer, Baltimore Sewerage Commission, Baltimore, Md.

"Digestion of Activated Sludge," by Harrison P. Eddy, consulting engineer, Boston, Mass.

"Experience and Results of Four Years' Operation Imhoff Tanks, Coarse Screen, Fine Screens and Trickling Filters," by Charles C. Hommon, chemist in charge, Atlanta, Ga.

"The Nuisance Aspect of Municipal Plants for the Disposal of Solid and Liquid Wastes," by George W. Fuller, consulting engineer, New York City.

"Sewage-disposal Legislation and Sanitary Economics," by H. N. Roberts, consulting engineer, Longview, Texas.

"The Passing and Conservation of Macadam City Streets and Country Roads," by George C. Warren, Boston, Mass.

"Business System Applied to Street and Road Management," by Will P. Blair, secretary, National Paving Brick Manufacturers' Association, Cleveland, Ohio.

"The Resurfacing of Old Brick Pavements with Sheet Asphalt at Columbus, Ohio," by T. H. Brannan, superintendent of asphalt.

"The Proper Oil for Treating Creosoted Wood Blocks for Paving," by P. C. Reilly, Indianapolis, Ind.

"Treatment of Wood Paving Block," by C. H. Teesdale, U. S. Forest Products Laboratory, Madison, Wis.

"Concrete Paving Experiences," by K. C. Gaynor, consulting engineer, Sioux City, Iowa.

"Vertical Fiber Brick and Wood Block Pavements in the South," by E. A. Kingsley, consulting engineer, San Antonio, Texas.

"Granite Paving," by C. D. Pollock, consulting engineer, New York City.

"Granite Pavements in the Borough of Manhattan," by R. A. MacGregor, assistant engineer, Bureau of Highways, Borough of Manhattan, New York City.

"The Re-paving of Broad Street, Elizabeth, N. J., with Grounted Granite Block," by Thomas E. Collins, city engineer.

"Recent Developments in Street Lighting, Theory and Practice," by Preston S. Millar, general manager, Electrical Testing Laboratories, New York City.

"Pasadena's Electric Utility and Street-lighting System," by C. Wellington Kolner, E.E., general manager, Municipal Lighting Department, Pasadena, Cal.

"New Street-lighting System Being Installed in Milwaukee, Wis.," by Arthur J. Sweet, Milwaukee, Wis.

"Uniform Boiler Laws," by John C. McCabe, boiler inspector, Detroit, Mich.

"A Chemical Survey of a Chicago Sewer," by Benjamin Brooks, Kansas City, Mo.

"My Experiences with Cost Data on Municipal Works," by Paul E. Mercier, chief engineer and city surveyor, Montreal, Quebec.

The authors of the different papers were men who were selected because of special work which they have been doing in the line mentioned, and as discussions of each subject were held following the reading of each paper, many further interesting reports and experiences were brought out by men doing similar work in other parts of the country.

Thus those who attend these annual meetings have the opportunity of acquainting themselves with the latest ideas in every branch of municipal work and are able to equip themselves to better carry forward similar work in their own communities.

The meetings of the society extended over a period of five days. Interspersed between regular sessions were

trips of inspection provided by the Newark hosts. These included an automobile ride through the city, the county park system and the county institutions, the trip being planned over streets paved with different classes of material, so visitors could obtain some idea of how Newark's streets are paved and maintained. Another interesting trip was the inspection of the Port Newark terminal and municipal dock, including a review of New York harbor.

At the business session of the society the following officers were selected for the ensuing year: President, Norman S. Sprague, chief engineer Bureau of Engineering, Department of Public Works, Pittsburgh, Pa.; first vice-president, E. R. Conant, chief engineer, Savannah, Ga.; second vice-president, G. H. Norton, Buffalo, N. Y.; third vice-president, R. Keith Compton, chairman and chief engineer Paving Commission, Baltimore, Md.; secretary, Charles C. Brown, Chicago, Ill.; treasurer, F. J. Cellarius, Dayton, O.; finance committee, Geo. A. Carpenter, Pawtucket, R. I.; Fred A. Reimer, county engineer, Essex county, New Jersey, and Hal Mosley, Dallas, Tex.

Invitations were received from 15 cities for the 1917 convention, but inasmuch as the meetings for several years had not been held in the South, New Orleans was chosen for the next meeting.

In accordance with past custom, a certain portion of the convention hotel is set aside for exhibit tables for manufacturers of materials and equipment used in municipal work, and at this year's meeting quite a number of important firms were represented. These included the following:

Concrete Appliances Co., 119 Broadway, New York.  
Lock Joint Pipe Co., 165 Broadway, New York.  
Hastings Pavement Co., Hastings-on-Hudson, N. Y.  
The Jennison-Wright Co., Toledo, Ohio.  
Warren Brothers Co., Boston, Mass.  
U. S. Asphalt Refining Co., 90 West street, New York.  
Bitoslag Paving Co., 90 West street, New York.  
John Baker, Jr., 17 Battery place, New York.  
Barrett Manufacturing Co., Philadelphia, Pa.  
Portland Cement Association, Chicago, Ill.  
Dunn Wire-Cut Lug Brick Co., Conneaut, Ohio.  
Pacific Flush Tank Co., Chicago, Ill.  
Southern Pine Association, New Orleans, La.  
Republic Creosoting Co., Indianapolis, Ind.  
Standard Oil Co. of New Jersey.  
Standard Oil Co. of New York.  
International Clay Products Bureau, Kansas City, Mo.  
Granite Paving Block Manufacturers' Association, Boston, Mass.  
The Atlas Co., Lincoln, N. J.  
W. & L. E. Gurley, Troy, N. Y.  
Bituminized Road Co., Kansas City, Mo.

### Campaign to Offset Boll-Weevil Damage.

Laurens, S. C., October 12.—[Special.]—Approximately 24,000 pounds of crimson cloverseed have been bought through the Crimson Clover Club by the farmers of Laurens county for immediate planting. The Crimson Clover Club recently had its inception as the result of a campaign conducted by Percy W. Moore, county agent of the Department of Agriculture of Washington, and Lee Alison, editor of the Laurens Advertiser, who have been urging the farmers of this section to prepare for the coming of the boll-weevil.

It is estimated that fully 1500 acres of Laurens county land will be sown in this prolific soil-building crop. A great step forward, agriculturally, has been made by this move on the part of the Laurens farmers. Crimson clover is found to be not only a great producer of fine hay, but is one of the most highly recommended of all soil-building legumes.

The seed was bought after a competition had been entered into by several of the largest seed houses in the country. The first order was for 15,000 pounds, but so fast did the enthusiasm spread over the county that the final order was for 24,000 pounds. The seed are guaranteed 98 per cent. pure and 90 per cent. germination. Pure culture for inoculating the seeds has been furnished free by the Government.

This move on the part of 250 farmers of Laurens county is not only attracting State-wide attention, but the whole South is interested in the campaign. A successful outcome of this co-operative movement, as is freely predicted and assured by the leaders, will undoubtedly have the effect of spreading the gospel of better agriculture, through the production of leguminous crops, in this section.



# The Issues of the Present Campaign and Why Business Men Should Study Them

[Special Correspondence Manufacturers Record.]

Washington, D. C., October 14.

Future progress of the South and Southwest depends in a very large measure upon the outcome of the present campaign. This is a non-partisan view. It is not necessary to discuss herein the relative merits of Mr. Wilson and Mr. Hughes. Voters invariably have their personal likes and dislikes. They may like the literary style of Mr. Wilson or they may prefer the more direct manner of speaking of Mr. Hughes. They may be glad that Mr. Wilson has kept the country out of war and that there is prosperity in the country. But there are big issues underlying the campaign which every American who loves his country should carefully consider and debate with his friends and neighbors.

There ought to be less consideration of strict party lines this year than ever before. It should be regarded as a minor consideration whether Southern members of Congress control or fail to control the various committees of the House. A few postoffices more or less in the South cannot be considered of vital importance when compared with the prosperity of all the mills, factories and homes of the South. Nor can any mere political advantage be considered of importance in comparison with the national honor and national safety.

For that matter, while it has been charged in the North that the South has dominated legislation, the fact is that the present Administration has leaned backwards in the effort to stand perfectly erect with respect to giving the South what is needed there and what would be to the advantage of the whole nation to have there. There was no need, for instance, to debate about the location of the nitrate plant. It should have gone to Muscle Shoals. The cyanamid process of making nitrates should have been selected without red tape, since it is the one process whose suitability has been demonstrated. From a national standpoint, the armor-plate plant also should have gone to the South without red tape.

These, however, are not the issues of the campaign. The present Administration holds that there are two issues, "Peace" and "Prosperity."

There could be no better or more succinct statement of the issues.

Under the heading of "Peace" come the foreign policy and preparedness. One of the greatest questions under this heading is whether the means taken to preserve peace were the best means that could have been taken. Roosevelt, by sending the fleet around the world, once assured peace at a critical time. This method of preserving peace has an advantage over the note-writing method. It not only preserves peace, but the respect of the world as well.

The Naval bill recently enacted by Congress has been described as the longest step forward ever taken by any nation in a time of peace. This unquestionably is true. But what of the army? The Army bill was a fake and a fraud. The increases provided are to be made at the rate of 10,000 a year, which puts off for five years the ultimate goal of an army of about 100,000 men.

Under the heading of "Peace" also must be considered the question whether Americans have given up more than they have gained by the peculiar method of preservation adopted. The American Government today takes the attitude that the American flag does not follow an American wherever he may go; that it does not protect his investment in any foreign country; that it does not protect his property in any foreign country. Hitherto the American flag protected American lives and property anywhere in the world.

The issue of "Peace" has an intimate relation with the issue of "Prosperity." They are more closely interwoven than most persons realize. The character of the foreign policy with respect to Mexico, for instance, has been responsible for the refusal of American financial interests to rescue Mexico from her condition of bankruptcy. And until she is rescued there will be no order or protection of lives and property in Mexico; nor will American investments be made profitable there. The reluctance of American financial interests to make a loan to China is due to the foreign policy which refuses to give backing to American investors.

If there is to be a good export trade after the war is

over there must be a strong and consistent foreign policy. Financing is one of the most important elements of the foreign trade. Just now the export trade is taking care of itself. The Administration says that only 6 per cent. of this trade is due to war orders for munitions. This is absolutely incorrect. The bulk of the export trade may not be due to war munitions, but it is due to war conditions, and most of it is for the direct use of the armies of the Allies. Nearly all, if not all, of our increased trade to neutral countries is due to the fact that Germany's exports to those countries have been cut off entirely, while the manufacturing output of all the other belligerents has been cut down by the defection of millions of employees into the embattled armies.

It is idle to talk of Americans conquering the markets of the world by superior ability and brains. We are able to compete with the markets of the world on such a large scale now because the nations of Europe are handicapped, this war handicap offsetting to a large degree the difference in the cost of production at home and abroad. An American manufacturer paying \$3 or \$4 a day in wages cannot compete with a Japanese manufacturer paying \$3 or \$4 a week.

Nearly two-thirds of all imports are coming in free of duty. Thus hundreds of millions of dollars' worth of cheaply-made goods of Europe are displacing an equal amount of American-made goods and labor. It needs no occultism to ascertain what will happen after the European war is over if the present tariff law remains unchanged.

America has accumulated a supply of gold greater than ever before held by any three nations in the world combined. The Comptroller of the Currency, John Skelton Williams, as partisan a Democrat as can be found anywhere, recently said to the American Bankers at Kansas City that deposits in the banks of the United States are so huge that if there should be withdrawn from them an amount of deposits equal to the total resources at this time of the government banks of England, France, Spain, Netherlands, Norway, Sweden, Switzerland and Japan, all combined, the deposits in our banks would still be as great as they were three years ago. And he added this warning:

We are in a world infinitely vaster than Rome knew. We can hold in it power and place far beyond the wildest dream of the proudest Roman. "In all time of our tribulation, in all time of our prosperity, in the hour of death and in the day of judgment, good Lord, deliver us," runs the Litany. Men wise as Caesar Augustus wrote that for us to use in our prayers. They understood, as he did, that the dangers of prosperity are as deadly as those of adversity, death and judgment.

Two days before, at Baltimore, President Wilson had said:

My dream is that she (America) will take her place in that great field in a new spirit which the world has never seen before; not the spirit of those who would exclude others, but the spirit of those who would excel others. I want to see America pitted against the world, not in selfishness, but in brains. The first thing that brains have to feed upon is knowledge.

And, as if answering this argument, the President's Comptroller of the Currency said at Kansas City:

While we are planning gigantic schemes for world development, let us not forget that the most immediate and vital business duties which lie before us relate to the up-building of our home enterprises, especially the small factories and mills and development undertakings in the lesser cities and towns and in our country districts. Those provide the surest and safest foundation on which to erect national wealth.

It can well be said: "What does it profit America to gain a large part of the markets of the world, if it lose a considerable part of its own markets?" Southern manufacturers will do well to ponder the tariff problem in connection with the prosperity issue. The export trade has reached the abnormal figure of about \$4,500,000,000. The domestic trade of the nation is estimated at \$36,000,000,000. The consideration given to the domestic market should be in the same proportion even

now, when the export trade is at its height, at the ratio of eight to one.

All the experts agree that the exports due to war conditions cannot be held after the war. Certainly the export trade cannot be maintained under a foreign policy that gives no protection to American investments abroad. The nation has been kept out of war, but by what sort of policy? The war has given the country a phenomenal export business. But whither is the nation tending? Under what kind of policies will the nation prosper best in the next four years?

These are the questions embodied in the two major issues, "Peace and Prosperity," as formulated by the present Administration. They are related to the question of a large navy, an adequate army, industrial preparedness and the foreign policy. They are the questions that will be answered at the polls.

## Livestock Industry Fostered at South Carolina Meeting.

The livestock show and conference held at Orangeburg, S. C., last Wednesday and Thursday is asserted to have been the biggest meeting of farmers and others interested in the cattle industry ever assembled in that city. Exhibits of pure-blooded cattle and hogs were the centers of attraction for many, but the excellent addresses delivered on livestock farming as one of the essential means of getting away from the one-crop system prevailing to such an extent in the cotton belt of the South were no less interesting and instructive to those in attendance.

More educational meetings of this kind would be useful in bringing the farmers of the South into touch with successful methods of dairying and cattle raising, not to the extent of raising one or two hogs only, to furnish a little smoked meat for the winter or a little spending money for the family, but as a vital part of farming operations, made as important as the cotton or corn crop.

At these meetings farmers are taught the advantages of the cattle industry when run in conjunction with farming; how to select the best breeds of stock, and more important still, are informed by experts as to the best method of handling and carrying on livestock farming. Agriculturally, the South without the growth of the cattle industry can never reach its greatest development, and it is gratifying to see that initial efforts along this line are beginning to show marked results.

Among the subjects discussed at the Orangeburg livestock conference were the boll-weevil question, and how to meet it; development of diversified farming, and the part that the cattle industry plays in its success; methods of handling and marketing livestock and livestock products. At the exhibition grounds instructive demonstrations were given, one among them of especial interest being the inoculation of hogs with anti-hog cholera serum.

Speeches were made by A. F. Lever; Dr. W. W. Long of Clemson College; Col. E. J. Watson, commissioner of agriculture of South Carolina; Mrs. H. M. Mathis, representative of the Alabama Bankers' Association; E. Z. Cornwell, representing the National Portland Cement Association; F. W. Harding, secretary of the American Shorthorn Breeders' Association; Hon. H. B. Mobley, president Arkansas Farmers' Union; H. B. Minium of Armour & Co., Jacksonville, Fla.; J. P. Durler, manager demonstration farm, Villas, Fla.; Prof. C. V. Piper, agrostologist of Department of Agriculture; Alex. Maul, development agent of the Atlantic Coast Line Railroad; C. S. Ucker, vice-president of the Southern Settlement & Development Organization; A. L. French of Rockingham, N. C., representing the Progressive Farmer, and others.

## The Cotton Movement.

In his report of October 13 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 74 days of the season was 3,169,911 bales, an increase over the same period last year of 669,305 bales. The exports were 1,181,464 bales, an increase of 272,844 bales. The takings were, by Northern spinners, 384,510 bales, an increase of 49,911 bales; by Southern spinners, 631,195 bales, an increase of 82,273 bales.

## HUNTINGTON SHOWS GREATLY DIVERSIFIED INDUSTRIAL GROWTH.

Rich Natural Resources, Excellent Transportation Facilities and an Energetic Citizenship Combined for Notable Development in All Lines.

[Special Correspondence Manufacturers Record.]

Huntington, W. Va., October 9.

This city showed an increase in population of 161 per cent. between 1900 and 1910. Its population in 1900 was 11,923; in 1910 it was 31,161; it is now probably well over 40,000, and new roofs, showing throughout every section, may be taken as an indication that continued growth is very rapid.

And not only is its growth one of population. It is also making rapid strides along commercial and industrial lines. New manufacturing plants have been and are being constructed; new mercantile establishments opened; new men and new money are continually coming in to become a part of the hustling, enterprising life of the community.

As showing something of the strength of Huntington as a manufacturing city it may be mentioned that among the products manufactured here are freight cars, tram cars, logging cars, cabooses, steel rails, rail joints, spikes, car wheels, woolen goods, furniture of various kinds, including school furniture, stoves, chinaware, paper and wooden boxes, hickory handles, plow castings, veneers, moldings, picture frames, spring beds, mattresses, flour, bakery products, shoes, automobile rims, wagon rims, wagons, carriages, automobile supplies, brick of various kinds, including glass brick for inside finish, flooring and oak interior finish, ready-cut houses, roofing tile and terra-cotta roof trimmings, blasting powder and sporting powder, bungs, barrels, hogsheds, shingle dip, Japanese pulp, floor oils and waxes, decorated porcelain, blank books, loose-leaf and lithograph work, glassware, clothing, cement products, oil and gas-well tools, candy, proprietary medicines, saddles and harness, brass fittings, aluminum fittings, gray iron castings, steam boilers, iron tanks and many novelties and specialties. The industrial plants number 103 and employ 9500 people.

The labor supply here is excellent, the working people being for the most part native Americans; strikes are infrequent, and what labor organizations there are have been fortunate in being headed by level-headed, conservative men. The labor supply is rendered elastic by reason of the fact that there is a large farming population within a few miles radius, in this State and Ohio, from which the ranks of the workers are constantly being recruited. It is a fact of more than ordinary significance that fully 75 per cent. of the mechanics, artisans and laborers of Huntington own their own homes, and there is nowhere in the city what might be termed a tenement district.

In the matter of transportation Huntington is more than ordinarily well supplied. It has the main line of the Chesapeake & Ohio, the Ohio River branch of the Baltimore & Ohio passes through, and the Norfolk & Western runs but four or five miles from its borders. The Guyan Valley branch of the Chesapeake & Ohio runs from here through Lincoln and Logan counties, bringing the city into close touch with the great coal fields of the latter and the oil and gas fields of both. The Virginian Railway sends its passenger trains here over the tracks of the Chesapeake & Ohio. A splendid traction line not only gives excellent local service, but extends far beyond the city limits to the Kentucky cities of Catlettsburg and Ashland and the Ohio city of Ironton. The Ohio River furnishes water transportation for most of the months of the year, and with the completion of the Government's present plans of improvement will have a none-foot stage from Pittsburgh to Cairo during all the months.

Fuel is supplied by the great coal fields of the Guyan, Kanawha, New River and Pocahontas districts, from which the highest grade coals are laid down here at prices ranging from 90 cents to \$2 a ton, while a large supply of natural gas is available at prices ranging from

5 to 8½ cents for manufacturing purposes. Electric current is furnished at from 6 cents per kilowatt hour—with a discount—for domestic purposes to a much lower price for manufacturing purposes.

The great forest areas lying close to Huntington render it an inviting location for mills and woodworking plants of many kinds, in addition to those already operating here. The abundance of cheap fuel available, together with the fine quality of glass sand found within easy reach, makes it an eligible place for glass-making. Cheap transportation between Huntington and Pittsburgh enables the foundryman to procure pig-iron at a low price, and the growing market for foundry products added to this makes Huntington an excellent location for foundries. The fine clays, sands and shales found all about the city render it attractive to the maker of brick, tile and building materials of various kinds. Sandstone of fine quality lies in all the surrounding hills, and high-grade limestone is procurable within a few miles.

Recognizing the advantages of Huntington as a distributing point, many manufacturing concerns and jobbing houses in the larger manufacturing and commercial centers have established branch houses and agencies here, and the same causes have made the city the home of a number of prosperous wholesale houses dealing in groceries, dry goods, shoe and other articles of a staple nature. Hundreds of traveling men, representing local and other wholesale houses, go out from Huntington each week into the rich and growing trade territory so easily reached by means of its lines of transportation. Numerous large coal-producing companies have established their selling agencies here.

Huntington is beautifully located and laid off. Its streets and avenues are broad and straight. Pavement of a permanent nature has been laid upon 90 miles of streets, avenues and alleys, and hundreds of miles of good sidewalk, mostly cement, has been laid.

New buildings costing \$1,950,000 were erected in Huntington during the year 1915, and the present year will show well over \$2,000,000 expended in the same way. Those in charge of the city schools have found it impossible to furnish school buildings as rapidly as demanded by the fast-growing population, though they have been building continually for a number of years. A high-school building recently completed is one of the most beautiful and best equipped structures of the kind to be seen anywhere.

Prices of real estate are continually advancing, most of the purchases being made by parties intending to erect business buildings for their own use. The leading Baptist church of the city recently sold at auction its property at the corner of Fifth avenue and Ninth street, and the price it brought astounded even those who have hitherto evinced the strongest faith in the continued growth and prosperity of the city. The old church building has been torn down and workmen are busy laying the foundation of a large business block, which will be used by the owner for mercantile purposes. He already has two stores in the city.

It is but just to say that with all the natural advantages enjoyed by Huntington, the growth and progress of the city is due in large measure to the hustling qualities of its citizenship. These find expression through a Chamber of Commerce of 1000 members, all believers in the city, and every one active in his efforts to hurry it to the strength and importance in manufacture and trade which it is destined to achieve. GEO. BYRNE.

## Wilson Company to Construct Meat-Packing Plant at Jacksonville.

Jacksonville, Fla., October 16—[Special.]—The erection here in the near future of a large meat-packing plant by Thomas E. Wilson & Co., successors to Sulzberger & Sons, is announced by representatives of the company, who have secured a large tract of land in the manufacturing section of the city for suitable buildings and stockyards.

The Wilson interest a short time ago bought and consolidated a large number of independent packers, and are now numbered among the largest packers in the country.

The location of this plant is another move toward Florida becoming a real factor in the cattle-producing world, and it is understood that another large company is contemplating the location of a plant in Jacksonville also.

## SAN ANTONIO TO HAVE GREAT FILM MANUFACTURING PLANT.

Hot Wells Property Sold to New York Corporation, Which Plans to Expend \$335,000 on Improvements.

San Antonio, Tex., October 12—[Special.]—A telegram from New York has just been received here announcing that the deal for the Hot Wells property, two miles south of the business center, between Col. Ike T. Pryor and the Gotham Film Corporation of New York city, has been consummated. This assures the building of the largest film manufacturing plant in the South, and involves the construction of \$335,000 worth of buildings, this building to be done at the rate of \$135,000 worth per year until the entire plant is built and equipped.

The first building on the program, and the construction of which will be begun immediately, is a large, enclosed-by-glass studio, 170x300 feet, said to be one of the largest structures of its kind in the world devoted to a similar purpose. There will be a six-foot excavation for this building under its entire extent. The main structure will be erected on pillars of reinforced concrete, the outer walls to be of concrete, while every 30 feet on both sides and ends 12x12 sliding doors will be installed. The floor, which is to be of wood, will be elevated four feet above the ground. Otherwise, the entire structure is to be of glass and steel. There will be light sockets installed every 30 feet over the walls and floor.

The open-air studio, 150x300 feet, will have concrete foundation, and will cost \$63,000. The warehouse will be 100x200 feet, with 20-foot walls, divided into five rooms, cost \$6500. The laboratory building will be 50x75 feet, with 20-foot walls, reinforced concrete, \$11,250; enclosed studio, 50x75x40, same as No. 1, without cellar, cost \$36,850; film vault, 15x25x15, reinforced concrete, subdivided into compartments size of films, cost \$2750.

Other small buildings will include projection-room or theater, \$2950; garage, \$3750; stable, \$3300; shed, \$11,250; grandstand, \$3000; office building, \$12,500; swimming pool, \$9000. For improvements of roads and grounds, including drainage, the plans contemplate the expenditure of \$20,000, and for architects, additional construction and miscellaneous expenses, \$60,752. For garage equipment there will be expended \$5000; for automobiles, \$18,500; stables equipment, \$5000; horses, \$6500; projection-room equipment, \$1200; laboratory equipment, \$500; warehouse equipment, \$6000; open-air studio equipment, \$15,000; enclosed studio equipment, \$65,000; office equipment, \$3500; harness and carriage equipment, \$11,000.

In the consummation of the deal for the real property, B. F. Reeves has been representing the corporation. The main office of the corporation is 1457 Broadway, New York. Marshall W. Taggart is president of the corporation; W. C. Monson, vice-president; A. F. Conery, treasurer; Irvin J. Barsky, secretary. On the board are several millionaires, among them A. F. Pinkerton, president of the Precious Metal Manufacturing Co. of Whitestone, N. Y., and the owner of Hotel Webster, at 45th street and Fifth avenue, New York; Robert L. McElroy, president of the Cement Gun Co. of New York and the Automatic Fire Prevention Co. of New York, and H. S. Eberle, retired capitalist of New York. The managing director of the company is Oscar W. Eagle. The corporation is capitalized at \$5,000,000, and has producing studios at Glenwood, Long Island; Elitch's Gardens, Denver, Col., and at Colorado Springs, Col.

In assigning the reasons for locating the corporation's main picture-making plant at San Antonio, Mr. Reeves said:

"This city is at the bottom of the national fan, so to speak, and is thus the best center for equal distribution in the United States.

"Then again, it is unsurpassed in climatic advantages—its sunshine is wonderful for good picture-making. Last year there were 312 days of sunshine and 221 nights of moonlight. This does away with the mercurial lights so hard on the eyes of actors and actresses, and which as a consequence are dodged as much as possible."



# The Iron Ores of Llano County, Texas

By J. A. UDDEN, Director Bureau of Economic Geology, Austin, Tex.

It has long been known that the Central mineral region of Texas contained deposits of iron ore that offered possibilities of commercial development. The difficulties in the way of their development, however, such as inaccessibility to transportation, have not made their exploitation a tempting proposition in comparison with other deposits in the United States which could be much more easily worked and brought to market. It has lately been suggested that these ores might, nevertheless, become very valuable to our nation if the fortunes of war should ever happen to deprive us of the working of other iron ores which are less centrally located and which might for that reason become unavailable. Under these circumstances, it may be pertinent to set forth briefly the facts known about the iron ores of central Texas.

The iron ores in this region were studied as early as 1889 by Theo. B. Comstock, then in the service of the Texas Geological Survey. Mr. Comstock made two reports on his observations, one of which was published in the first annual report and the other in the second annual report of the geological survey of Texas. Mr. Comstock was so impressed by the quantities of the available ores that he stated in his official report that "there is enough of the very best Bessemer ore to build up an industry far in excess of the requirements of the Southwest for long years to come, even with a growth of the State far beyond the calculations of the most sanguine advocates." \* \* \* There can be no doubt of the future greater prominence of central Texas as a producer of iron ores.

He pointed out, however, that the iron industry in this region would depend upon some other factors than available ore, such as "cheap fuel and labor," and admitted these factors might delay the development of the iron-ore industry which he confidently expected.

The economic conditions have so far prevented even an inception of the utilization of these ores. This same region was later studied in 1911 by Mr. Sidney Paige. This author says that until very recently no investigation has been made of the iron ores in this region in such a manner as to definitely establish the status of the more promising deposits. He noted that the ore occurs in the form of magnetite in the pre-Cambrian schists and gneisses, and that the deposits are mainly associated with the formation known as the Valley Springs gneiss. The ore is associated with gneisses, schists and granite. He also states that though there is a possibility that the ores owe their origin to processes connected with igneous intrusion, still he concludes that they are contemporaneous deposits in sedimentary rock which have been altered to their present form during regional metamorphism.

Taking up the various localities where iron ore occurs, Paige says that of 32 more or less distinct occurrences of iron ore which he examined, only three were considered to warrant further exploration to determine their commercial value.

One of these localities is on the Little Llano River, about 60 miles east-northeast of Llano, and a mile southeast of Lone Grove postoffice. This property was opened by a shaft in 1892. He says there is a chance that the ore layer may extend for some distance to the southwest, but he considers the proximity of a granite as being unfavorable, inasmuch as cross-cutting dikes and irregular masses are likely to interrupt the continuity of the deposit. The Iron Mountain prospect, which is located 12 miles northwest of Llano and about one mile northwest of Valley Springs, shows a surface outcrop 114 feet long and 22 feet wide at its center. The ore body as revealed at the surface is a nearly vertical mass of very pure magnetite. The complex intrusion of the granite into the schists at this place has obscured the exact relations of the ore body and the surface covering has added to the difficulty of estimating its size.

This property has been developed by a shaft, with cross-cuts at 50 and 100-foot levels, and several drifts, as well as by a number of diamond drill holes. The exploration proves that the main mass is cut off at some point below the 50 and 100-foot levels. This author states that at present neither the drifts nor the borings have shown up a body of ore sufficient to warrant the opening of the deposit on a large scale, and

that a few more diamond drill borings in addition to those already made may demonstrate that such an ore body really exists.

The Bader tract is located about nine miles west of Llano and nine miles south of the Iron Mountain line. Iron ore has been found at several places along a zone trending north-northwest and south-southeast, about 500 feet in width and nearly 700 feet in length. A shaft on the extreme southwest corner of the Otto tract, which lies nearby, encountered magnetite, and the ore may extend farther in this direction. The Bader tract has been explored only near its north end, where the original surface indications appear to have been the best. An incline made on this property reveals two ore layers, estimated to lie between 10 and 15 feet apart. The lower ore is described as gneiss, carrying thin and discontinuous layers of magnetite. No definite conclusion was arrived at with regard to the possibilities of this tract, but the author says that caution should be exercised with regard to accepting an unfavorable view with regard to deposits of this kind, for experience in other districts has shown that the importance of magnetite ore bodies in gneisses may be underestimated from surface indications.

Mr. Comstock collected samples of ore from more than 40 localities in various parts of Llano, Burnet, Blanco, San Saba, McCulloch and Mason counties. These ores were analyzed, and the analyses show a range of metallic iron in these samples varying from 5 to 69 per cent. The analyses also show that these ores are for the most part relatively free from phosphoric acid, this ingredient appearing only as a trace in 34 samples and rising to more than 1 per cent. in only four samples. He classified the ores into magnetite, hematite, sandy, segregated and hydrated ores. In the following table some averages of the analyses of the ores examined in each of these groups are presented:

Analyses of Sixty-four Samples of Iron Ore from the Central Mineral Region of Texas, Giving the Average Composition of Five Classes of Ores.

	9 samples of magnetite.	15 samples of hematite.	6 samples of sandy ore.	12 samples of segregated ore.	22 samples of soft (hydrated) ore.
Ferrous oxide.....	70.29	81.68	38.14	73.22	68.00
Ferrous oxide.....	16.86	2.02	.30	.38	16.76
Silica.....	8.05	8.78	48.14	19.21	3.96
Alumina.....	4.25	4.50	3.90	2.77	1.16
Lime.....	.40	.83	5.56	.94	.31
Magnesia.....	Trace	Trace	Trace	Trace	.31
Phosphoric acid.....	.12	.06	1.07	Trace	.18
Sulphuric acid.....	.17	.12	.32	.40	.31
Total.....	100.24	98.59	97.23	96.92	96.92
Metallic iron.....	62.34	57.83	26.70	50.16	47.60

\*Loss by ignition, 7.63 per cent. Total, 98.21.

It is seldom that we find two authors so markedly disagreed with regard to economic possibilities of iron ores as is the case of the two authors quoted. Mr. Comstock is known as a mining man, while Mr. Paige is a geologist. The results of the work of each of these men has been published as geological reports. The conclusions with regard to the geological conditions in the region, to which the two authors arrived, are even more divergent than their estimate of the economic possibilities of these ores. Mr. Comstock concluded that these ores occurred in bands extending in a northwest-southeast direction, and in the discussion of the field he refers all of the ore occurrences to one or another of several bands, which he regarded as following straight lines extending more than 60 miles across the country, from the Pedernales River to the San Saba River. Much of the discussion by this author is given to the reference of the several observed occurrences of iron ore to one or the other of these bands. In the map made by Mr. Paige, which was published as the Llano-Burnet Folio of the United States Geological Survey, none of these bands are apparent, and in the text of this author no reference is made to the existence of any such lineal distribution of the iron ores.

From perusal of the literature on this subject and from such observations as he has had the opportunity to make in the field, it seems to the present writer (1) that the ore bodies which exist in this region, under the contingency of high prices, such as might result from limitation of production in other parts of the United States, would no doubt prove a valuable asset; (2) that Mr. Paige's inference is true that too little development work has yet been done to make any re-

liable estimate possible of the actual quantities of ore existent; (3) that even the geologic conditions and relations of these ores are insufficiently known, especially in the region not covered by the report of Mr. Paige, as in east Mason county, north Gillespie county and north-west Blanco county.

## LOW DEATH RATE IN NORTH CAROLINA.

### Interesting Facts Furnished by Bureau of Vital Statistics—High Birth Rate Shown.

Raleigh, N. C., October 11—[Special.]—North Carolina leads all the other States in low death rate, according to figures compiled by the Bureau of Vital Statistics of the State Board of Health. Asked for a verification of recent newspaper reports to that effect, the chief clerk of the bureau has furnished me with the following:

"Herewith all the data we have been able to gather from the latest census report, that for 1914. The only States on the Atlantic slope for which death rates are given in the 1914 census report for the entire population are as follows:

Death Rate per 1000, 1914:*	
Pennsylvania.....	13.9
Maine.....	15.6
New Hampshire.....	16.3
Massachusetts.....	14.7
Rhode Island.....	15.1
Connecticut.....	14.2
New Jersey.....	14.7
New York.....	15.9
Maryland.....	14.0
Virginia.....	15.0
Vermont.....	12.4†
North Carolina.....	13.2†

Birth Rate:	
North Carolina.....	31.2†
North Carolina (1915).....	31.5†

\*Figures were compiled by the Bureau of the Census.

†Figures compiled in office North Carolina State Board of Health.

"The death rate given for North Carolina in the census report is 19.0. This, however, is only for the cities with a population of 1000 or over in 1910. Of course, this does not represent the true death rate of the State, which, according to the figures compiled in this office, was 12.4. The death rate for the State for 1915, according to our figures, is 13.2.

"We are not able to give you figures showing the birth rates in other States. According to our figures, the birth rate of North Carolina was, in 1914, 31.2 per thousand, and in 1915, 31.5. These rates are based on the estimated population furnished by the Bureau of the Census."

From investigations made recently by Dr. J. R. Gordon of the State Board of Health, North Carolina's birth rate appears to be higher than that of any other State on the Atlantic coast. However, the figures as to the other States may not be official, as they are not published by the Bureau of the Census. Dr. Gordon obtained the rates for the various States from their own reports on file in the office of the State Board of Health.

The figures both as to the birth rate and the death rate are of much importance, and it is expected that if the birth-rate figures of the other States are inaccurate they will be set out correctly by the States or by the Bureau of the Census. However, Dr. Gordon presumes that the State report figures are correct.

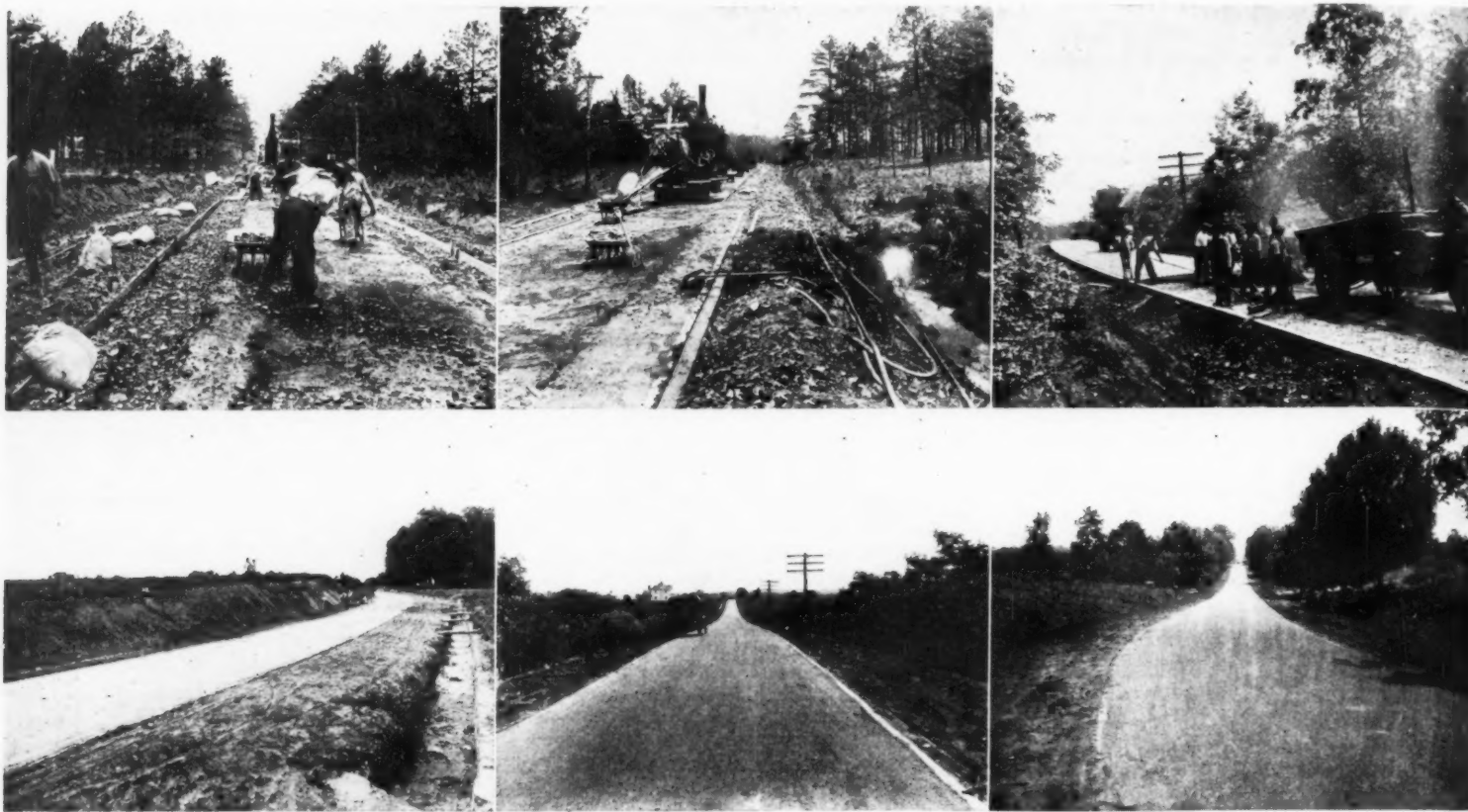
FRED A. OLDS.

## Textile Machinery and Power Transmission.

Richard Donohoe, representing Steppuhn Bros. of Baku, Russia, Hotel McAlpin, New York:

"We desire spinning and finishing machines and looms for manufacture of camel hair press cloth and belting. It is our plan to produce approximately 10,000 pounds of press cloth per year, of a width from 13 to 15 inches. The machinery for belting should be specified separately from that of the press cloth. For the belting we contemplate using two looms for widths from 6 to 8 inches, seven looms for widths from 9 to 12 inches and two looms for widths from 14 to 16 inches, altogether 11 looms. We are also desirous of securing information on power transmission, according to the most practical arrangement of erecting the plant, which should also be specified separately. I shall be very pleased to receive an estimate of the cost, plans and complete data on the above-mentioned machinery."

## RESURFACING AN OLD PRIZE ROAD IN GUILFORD COUNTY, NORTH CAROLINA.



GREENSBORO-HIGH POINT MACADAM ROAD RESURFACED WITH ASPHALT. OLD ROAD, ON COMPLETION IN 1909, WON \$1000 PRIZE FOR SUPERIORITY. ILLUSTRATING MARKED ADVANCE IN GOOD-ROADS CONSTRUCTION SOUTH.

Greensboro, N. C., October 13.—[Special.]—In 1909, when the first New York-Atlanta tour was made on the National Highway, a prize of \$1000 was offered to the community having the best stretch of road on the route. This prize was won by Guilford county, of which this city is the seat, for its fine macadam road between Greensboro and High Point, a distance of 15 miles.

Guilford county was one of the first communities in the South to take up and actually put into effect the good-roads doctrine which, at that time, was just beginning to have its good effect over the country. In

1909 that 15 miles of macadam road was perhaps the longest stretch of country road in the South, and to look back on it today it serves as a good starting point from which can be gauged the wonderful advance there has been made in the construction of permanent rural roads in the South. With the prize money a bridge midway between Greensboro and High Point was constructed in memory of what was declared to be the first real road in the South.

Several weeks ago a large celebration was held jointly by the citizens of Greensboro and High Point over the

completion of construction on an asphalt road between the two cities. This is the same road which, seven years ago, was considered the best stretch of road in the South. Two inches of asphalt have been laid over the base of the old road, making it again one of the finest stretches of country roads in the South.

Robert G. Lassiter & Co. of Oxford, N. C., which contracting firm is doing much of this work in the Carolinas, constructed this road. The work was under the direct supervision of the Guilford county commissioners.

ROY G. BOOKER.

### Experiments in Paper-Making from Wood Chips and Hemp Stalks.

As the result of studies which have been made at the Forest Products Laboratory on methods of handling wood chips suitable for paper pulp, it is announced by the Government Forest Service that Wisconsin paper companies are now negotiating with the railroads for shipment to their factories of experimental trainloads of chips of Western woods adapted to paper-making.

Previous investigations by the Forest Service have demonstrated that good grades of paper can be made from a number of Western woods. The experts now estimate that some of these woods, when cut into chips and dried and baled, can be delivered to the mills in Wisconsin at a very small advance over the cost of chips made from local timber. If a favorable freight rate can be obtained, they say, the great quantity of pulpwood on the national forests should prove to be a considerable factor in supplying favorably located paper mills with the necessary raw material. In Wisconsin alone, it is stated, there is an annual market for over 300,000 cords of pulpwood.

That a satisfactory quality of book paper can be made from hemp hurds, the waste stalk fragments produced in preparing hemp fiber for market, is a conclusion reached by specialists of the United States Department of Agriculture as a result of commercial tests made in co-operation with a paper manufacturer. The experiments and the economic conditions surrounding the use of hemp hurds as a paper-making material are described in a new Professional Paper of the Department of Agriculture, Bulletin 404.

The P. H. Hanes Knitting Co., Winston-Salem, N. C., will add 8000 spindles to its No. 4 mill.

### Anomalous Condition of Pig-Iron Market Pointed Out.

W. C. SEDDON, Baltimore, Md.

As a reader of the MANUFACTURERS RECORD and as a student in matters pertaining to the iron industry for a number of years, I have sought in vain for an adequate explanation of the reason for the great margin that exists in the selling prices of pig-iron and manufactured steel.

Did I not know so well the personality of the pig-iron manufacturers I would call it stupidity in allowing their raw material to be gobbled up for future delivery at such prices as are now prevailing. They are, however, men of great ability, and yet it is a fact that the crisis which years ago put pig-iron up to \$25 a ton was not as acute as it is today, when pig-iron is selling at \$10 a ton less than at that time.

Whenever the price of manufactured steel is advanced by any one manufacturer, it appears that the general market in that line advances, while among pig-iron manufacturers the opposite course too often prevails.

It seems opportune to suggest that there should be a pig-iron manufacturers' association, where conditions that affect the industry could be discussed, and, at a time when the world is clamoring for iron, some other plan adopted besides that of always trying to cut under the other fellow.

### Chemical Issue Most Valuable and Interesting.

S. Q. SEVIER, Attorney-at-Law, Camden, Ark.

I consider your chemical issue one of the most valuable and interesting contributions given the public by any journal within the range of my knowledge.

### Wants Agencies for American Manufactures.

Orazio Melardi, Messina, Italy:

"The MANUFACTURERS RECORD I have classified among the best similar publications which put in relation of business by system the American merchants with the firms of the world. I am well introduced to wholesale importers, and would like to get exclusive American agencies for the following: Corn; petroleum; maize; beans; peas; breadstuffs; hog lard in barrels; leathers for shoes; dried and salted fish; beer; coffee; shoes; shirting; men's and ladies' stuffs. To facilitate business, quote prices in francs or shillings c. i. f. Messina, and adopt for the measures and weights the decimal system. Asking those who wish to appoint an agent here to send samples, with prices and conditions of sale and agency. Also I would be pleased to represent first-class American importers which could charge me to buy for their account what they would require. I solicit correspondence for lemons; oranges in boxes and in brine; essential oil of lemons, oranges, bergamot, etc.; olive oil; Sicilian wines; almonds; filberts; sumac; brimstone; canary-seed liquor; rice paste; alimentary paste (maccheroni), etc., and all Sicilian articles."

### Bottles, Butter Machines and Incubators.

Kuri Primos Lucs, 2a Flamencos 15, Mexico City:

"Please advise makers to send us catalogues of farmers' machines, especially those to make butter; also incubators. Some of them are electric. Also we would like to know the makers of the bottles with cartoons tops, to the distribution of the milk, but here the measure is made by 'liter.' Please put us in communication with these makers."



## \$1,000,000 MEAT-PACKING PLANT FOR MACON.

**Brewery to Be Converted Into Extensive Enterprise for Killing and Packing Cattle and Hogs.**

Recent progressive developments in providing meat-packing plants in the South have been augmented this week by the announcement that a \$1,000,000 enterprise of this character will be established at Macon, Ga. The plan has been under investigation for some months, and it is understood that the financial arrangements are about completed. To stock subscriptions of \$500,000 there will be added a similar amount in the value of buildings and machinery formerly used for a brewing plant. The Acme Ice & Bottling Co., Alec Block, president, is arranging for this plant, in which both cattle and hogs are to be killed and packed.

Mr. Block and his associates expect that this plant will develop an extensive market for cattle and hogs at Macon, making the city the largest livestock and packing center in the Southeast. With the completion of this plant Georgia farmers will be assured of a ready market for largely increased stocks of cattle and hogs.

## AMERICAN BUSINESS OPPORTUNITIES IN CHINA.

**Big Men Needed to Introduce American Products.**

American Southern Baptist Mission,  
Laichowful, Shantung Province, China.

July 11, 1916.

*Editor Manufacturers Record:*

Allow me to thank you for the pains taken some months ago in corresponding with manufacturers with a view to finding some shoe that would be suitable for the Chinese, and in our effort to get in touch with the manufacturers of machinery operated by hand or foot for making fish nets. The shoes come too high for the average Chinese. They cannot buy leather shoes, but if someone could invent a material that would do for the tops and use some hard material for the soles a satisfactory solution might be found. The present Chinese shoe is made of cloth, with a paper sole, outside of which is one layer of native hog leather. There is a fortune for someone who will devise a cheap yet fairly durable shoe for the Chinese.

As to the fish-net machinery, I have written the Fowler Net & Twine Co. of Philadelphia, who make fishing net machinery, but it is beyond the reach of the Chinese purchaser because operated by steam. What they want is a loom that is operated by the foot. I am told that those of the foot-tread type formerly purchased here were made in Germany. These cannot now be had, and such machinery made elsewhere is of an inferior quality. One wealthy neighbor, however, thinks he can purchase one of the machines manufactured by the Philadelphia firm, and I am writing them for him.

The school which contemplated starting an industrial department by introducing the manufacture of fish nets has decided to make straw hats for the Chinese trade, and has bought an American make sewing machine for this. Since the cutting of many queues the hat-making industry has become quite a paying business. The Chinese will more and more use straw hats as they remove their queues and realize the value of shading the eyes from the strong Eastern sun. This section is the great straw braid producing locality of the world. It is made of the best quality of wheat straw. Anyone who is willing to work constantly can support himself by plaiting braid. It is remarkable how fast some can plait it. I have seen small girls not yet old enough to talk, standing on the streets plaiting the finest quality so fast that "it almost makes one's head swim." The war seems not to have hurt the business, for those who in Europe had begun making braid by machinery have had to give this up on account of the war, and practically all the braid for the Western market is being bought from this province, though some is made in Japan.

This is a time of opportunity for developing greater trade between the United States and China, but more vessels are needed running between American ports and China to carry even the present trade.

Our mission work here is in encouraging condition,

and progress marks every phase of the work. Last Sunday I was in an adjoining county, where there are more than 5000 Christians. It was good to meet large numbers of men and women coming into the city to Sunday worship. The Christians are usually those who take the lead in developing industries and introducing improvements from the West, these being recommended by the missionaries.

The leading American daily newspaper published in the Far East, the China Press, published at Shanghai, has done much for American interests in China. This paper has recently published a large, handsomely illustrated industrial edition, "The Rebirth of a Nation," in which there is a lengthy contribution by Mr. Julian H. Arnold, the United States Commercial Attache at Peking. Before quoting a paragraph from Mr. Arnold's article, entitled "American Trade in China," let me say that the American Government has done an excellent thing in calling Mr. Arnold to the head of this department. He had served as American Consul at Chefoo, Hankow and other important places, has traveled extensively in China, and in his pleasing way as a typical American gentleman has won the friendship of many leading Chinese. He is at the service of American manufacturers and traders who wish to forward trade between the two republics, and will be glad to render any service desired. With his knowledge of the Chinese people and the industrial situation here he is prepared to be of much help to those who wish to take advantage of present opportunities in this great country of more than 400,000,000 people. In his article, among other things, Mr. Arnold said:

There is one asset which Americans hold in China, the equal to which is not found in any other foreign country in the world. This is the good will of the Chinese people. I have traveled extensively over all this vast country, and have found that no other people on the face of this earth occupy a warmer place in the hearts of the Chinese people than do Americans. Our 2500 American missionary population in China is partly responsible for this great asset, for, with their numerous schools, hospitals, chapels and other uplifting institutions, they are creating for us throughout the length and breadth of this vast country, in sections far removed from treaty port influences, as well as in the commercial centers, a spirit of friendship which means much to us. The fact that we have not had a hand in the billion-dollar opium imports which came into this country from abroad, but, on the other hand, have used our influence to rid the country of this baneful drug, is also an item on the credit side of our account with China. Secretary Hay's strong support of the open-door policy of equal opportunity, which has received the backing of successive administrations, is recognized by the Chinese people as a distinct act of friendliness toward this country. The remission of a substantial portion of the Boxer indemnity has probably resulted more so than has any other single act on the part of any foreign nation in its relation with China in winning the esteem and respect of the Chinese people. These facts, combined with the facts that the United States has never gone to war with China nor exacted from her territorial possessions has made for us a distinctive, warm place in the hearts of the Chinese people.

This good-will is an asset which may and should mean much to us in a commercial way. In China business is done over the teapot rather than over the telephone, and friendship counts for much. Hence, we should not neglect to take advantage of the valuable asset which we possess in the good-will of these people. \* \* \* The Chinese are anxious to do business with us, and cordially invite American capital and American brains to come to China. Americans resident in China and engaged in business in this country are ready to do their part, but ask that the manufacturers and exporters at home play the game and treat them with something like the consideration which they accord their home trade. The time is now opportune for the inauguration of big things in American trade in China, but it will require big men to do the work in a way commensurate with the opportunities presented, hence let the American manufacturers and financiers send their big men to this field to co-operate with those of experience already on the ground. However, before we can hope for any success in a large way in our trade in China we must have adequate American shipping and banking facilities.

CHAS. A. LEONARD.

## Alabama Graphite Development.

Graphite property in Etowah county, Alabama, will be developed by the American Graphite Co. of Gadsden. This company has been chartered with \$100,000 capital by T. S. Kyle, B. W. Pruitt and R. B. Kyle, Jr.

## \$500,000 Virginia Coal Company.

The Virginia Navigation Coal Co. of Norfolk, capital \$500,000, has been incorporated with Isaac T. Mann of Bramwell, W. Va., president, and George W. Woodruff of New York, secretary.

## \$1,350,000 CONTRACT FOR STEAMSHIPS.

**Nine 2000-Ton Vessels to Be Built in Louisiana Plant.**

An important Southern shipbuilding contract, the principal details of which have recently become public, has been obtained by the Slidell Drydock Co. of Slidell, La. It amounts to \$1,350,000, and calls for the construction of nine 2000-ton vessels, the cost being \$150,000 each. Each ship is to be of yellow pine and 220 feet long, to be equipped with engines and accompanying machinery for 900 horse-power. The boats are of shallow draft, and will be towed into the Mississippi River at New Orleans for the mechanical equipment to be installed. Two of these steamships are nearing completion, and the hulls are expected to be launched before December 1.

Norwegian shipping interests ordered these vessels for service between Norway and England, loading ice on one trip and coal on the return.

## Iron and Steel Census.

A preliminary statement just issued by the Census Bureau contains the following comparative summary of the manufacture of iron and steel, steel works and rolling mills in the United States for 1909 and 1914:

	Census—		Per cent.
	1914.	1909.	Inc. (1)
Number of establishments (2)	427	446	-4.3
Persons engaged in manufacture	274,162	260,762	5.1
Proprietors and firm members	52	47	10.6
Salaried employees	25,294	20,629	23.0
Wage-earners (average No.)	248,716	240,076	3.6
Primary horsepower	2,705,553	2,100,978	28.8
Capital	\$1,558,371,000	\$1,004,735,000	55.2
Services	225,658,000	189,392,000	19.1
Salaries	37,516,000	26,191,000	43.2
Wages	188,142,000	163,201,000	15.3
Materials	590,826,000	657,501,000	-10.1
Value of products	918,665,000	985,723,000	-6.8
Value added by manufacture (value of products less cost of materials)	327,839,000	328,222,000	-0.1

(1) A minus sign (-) denotes a decrease.

(2) In addition, in 1914, 13 establishments not classified as "steel works and rolling mills" made steel castings and rolled steel valued at \$2,831,546; and in 1909, 29 similar establishments made like products valued at \$6,627,039.

## Flourishing Conditions in South Carolina Community.

J. RUTLEDGE MCGHEE, Johnston, S. C.

Farmers in this section of Western Carolina are reaping the benefit of intelligent farming. Crop conditions here have been far above the average, and very little embarrassment was occasioned by the excessive rains several weeks ago. Cotton is bringing a good price, and the farmers are selling it. Banks and business houses seem to be in a flourishing condition, and the opportunity is right here for foreign investments.

A co-operative creamery, it appears, could easily be established at Johnston, S. C., and also at Batesburg, S. C. From information obtainable, the farmers in these two communities will back the project financially and otherwise.

In Wagener, which is in the lower part of Aiken county, a movement has been set on foot to form a new county from parts of Aiken and Lexington counties. The area which it is proposed to embrace is made up of some of the best farming lands in South Carolina. The new county will be known as Edisto county. It is proposed to have the county-seat at Wagener.

## To Build Houses on Extensive Scale.

NATIONAL HOMEBUILDERS' CORPORATION, Richmond, Va.

This corporation, recently organized to operate somewhat similar to a building and loan association, with its plans patented and copyrighted, contemplates building in Virginia between 200 and 250 residences, varying in cost from a \$2250 workmen's home to a \$5000 residence. We will build these houses in series of from 50 to 150 in the suburbs of towns in Virginia.

We expect to open offices in Washington, Philadelphia and New York.

We would be pleased to have you furnish us the names of several makers of first-class concrete bricks or the names of those selling concrete-brick machinery, and also parties who sell or lease concrete guns for blowing stucco on houses of stucco finish.

# The Iron, Steel and Metal Trades

## METAL MARKETS QUIET DOWN.

**Little Buying Activity Reported in Copper, Lead or Spelter—Pig-Iron Continues in Large Demand—Structural Steel Statistics.**

New York City, October 17—[Special.]—Business in copper, lead and spelter is commencing to fall off, and it is very evident that the end of the great metal movement of the past two months or more is not far away. The closing of the movement, which started last August, finds producers of both copper and lead in a very strong position. As was mentioned in yesterday's dispatch, the advent in dullness will probably result in dealers making a bear drive against copper prices in order to secure cheap metal for the first half of next year. It is not believed in the trade, however, that such tactics will prove successful.

The Italian Government has placed an order for 1,000,000 pounds of copper, while domestic buyers are only purchasing small lots. The price situation of the metal has not changed from that extant last week.

While the statistical position of lead has not improved to any extent, the market is showing a firmer tone. There is an improved demand for nearby metal, and prominent producers state that they expect an early resumption of active buying by war consumers. Prices remain unchanged.

Further concessions were noted in spelter today, with the market very dull. Consumers do not show the slightest interest in the metal, and the interests who furnished the support for the recent upward movement are now out of the market.

The submarine scare in the tin market has apparently passed away, and the strength of the market now depends upon the statistical position of the metal. Buying for forward delivery is falling off, although the lower prices may create a better demand later on.

Consumers are actively buying additional tonnages of pig-iron for delivery this year and over the first quarter of 1917. This buying is responsible for a strong upward movement in prices on spot iron. Prompt iron at Buffalo sold today at \$21.50 furnace for No. 2 foundry, while numerous spot and nearby lots sold for \$21. The cleaning up of stocks of iron on furnace banks is commencing to have its effect, and free predictions are being made in the trade of \$30 iron within a fortnight. The Worthington Pump & Machinery Co. has come into the market here for 1000 tons of various grades of iron for first half shipment. Inquiries now in this market from nearby melters total about 1700 tons.

The business taken by the bridge and structural shops of the country in September, as announced by Secretary Gifford of the Bridge Builders and Structural Society today, was equal to 52½ per cent. of the capacity. This indicates that contracts booked last month for structural steel involved 91,561 tons. In August structural steel orders booked involved 64 per cent. of the capacity of the bridge and structural plants, the tonnage being 110,000 tons. The falling off in September was not expected. Since the first of the year structural and bridge plants have received orders for 1,086,140 tons steel work, while in the calendar year of 1915 structural work totaled 1,490,325 tons.

## BUYING OF 1918 STEEL COMMENCES.

**Speculative Purchasing Curtailed by Mills—Tinplate Makers Fix 1917 Prices—Steel Production Increasing—Higher Pig-Iron Values.**

New York, October 16—[Special.]—What is termed "long distance buying" in the iron and steel industry—the purchasing of supplies by consumers of steel products almost two years ahead—is now taking place among the important steel plants of the country. Inquiries from both foreign and domestic sources for 1918 steel are increasing in volume each week. Never before in the history of the steel trade of this country has such a state of affairs developed. That this is an indi-

cation of prosperous times ahead for the steel and iron industry for at least the next two years cannot be questioned.

The purchasing of shipbuilding material is one of the dominant factors of this unusual situation, and there are inquiries for over 350,000 tons of ship plate now in the market. Manufacturers of plate are booked full over the first half of next year, and buyers who have been seeking early deliveries have been obliged to pay very fancy prices. Japan recently purchased 5000 tons at 5 cents a pound, and England, Italy, Japan and Australia are among the countries that are seeking shipbuilding material, while the domestic demand is of enormous proportions. Car builders are also inquiring for large tonnages of plate, orders for about 20,000 tons having been placed since October 1, while new inquiries now in the market involve fully 60,000 tons additional.

The leading mills of the country are taking most strenuous measures to put a check to speculative buying of steel, which once more has come into prominence, and to stamp out efforts on the part of buyers to accumulate excess supplies of materials. The purchases of many consumers, therefore, are being limited to a minimum, or to their actual needs in the opinion of the mills. In connection with domestic business it is stated that the absorption of steel in this country is even greater now than before the war, when exports usually took 22 per cent. of the production, whereas exports today are running only to 18 per cent. of the output.

The production of steel is increasing almost weekly, and it is estimated that the output this month will probably be at a record rate, although pressure is still being exerted upon the mills for better deliveries than heretofore.

The price for tinplate in the first half of 1917 was fixed last week by independent manufacturers of the product at \$6 per base box, while the American Sheet & Tinplate Co. has placed its price at \$5.75. An advance in wire products is expected this week, while the continued large influx of structural business, especially from the railroads, is expected to result in another advance in structural shapes.

The regular base price on steel hoops is still maintained at 3 cents. This price, however, is strictly nominal, as the mills that are naming it are filled up to about the middle of 1917. It is understood that some mills are in a position to furnish a limited tonnage for first quarter delivery at 3.25 cents. The demand for hoops continues to be very heavy, especially for use in the packing of certain war commodities.

The decrease of 137,773 tons in unfilled obligations during September on the books of the United States Steel Corporation, as made public on Tuesday of last week, caused considerable surprise in steel circles, as the market was very strong during the month, and the increase of 66,000 tons in August appeared to presage a larger increase in September. It must be remembered, however, that the American Steel & Wire Co. and the American Sheet & Tinplate Co. are practically sold up for the year, and have not opened their books for later delivery, so that these two companies contributed very little to the month's bookings. The loss in unfilled obligations in September was about 9 per cent. of the capacity, while shipments were at about 96 per cent., thus indicating that bookings were 87 per cent. of capacity.

In accordance with predictions set forth in these columns, the American Sheet & Tinplate Co. advanced its prices on sheets last Friday for 1917 business, and its books are now open for orders at these higher quotations. Galvanized sheets are \$2 a ton higher, and blue annealed and black sheets are \$5 a ton higher. The new prices are as follows:

Blue annealed sheets.....	3.25c.
Black sheets.....	3.40c.
Galvanized sheets.....	4.50c.

Sales are to be made to jobbers for not more than the first quarter, and to manufacturers for not more than the first half. Sales will be made to only the regular trade, as it is not believed that there will be enough production to go around. Sales are to be made outright, with a mutual obligation on the buyer to specify

and on the mill to make delivery, the allotments to salesmen in the different districts to be in relation to the tonnages that it is believed can be furnished.

The quotations on blue annealed sheets are on a new basis. The American Sheet & Tinplate Co.'s new price is only for 12 gauge and heavier. Lighter gauges are to be figured on the regular black sheet basis, with the differentials formerly obtaining between gauges of black. This results in 14 gauge being quoted at less than 12 gauge.

The pig-iron market is rapidly developing into a situation similar to that of steel. The upward movement in prices last week became more acute than in the week previous. Changes in quotations were reported each day, and the uncertainty relative to furnace levels made it necessary to confirm all orders. The constant advance in prices did not restrict business in the least, however, domestic and foreign buying continuing in large volume. The advent of German submarines on the Atlantic seaboard had an adverse effect on foreign business for a few days, but with iron urgently needed abroad, the higher insurance rates, and the tendency to uphold shipments, were quickly overcome.

All quotations on foundry, malleable and basic iron below \$20 a ton have now been withdrawn from the market. This represents an advance of 50 cents a ton on these grades. Furnaces are going rather slow about contracts for the first half, but sellers express conviction that high prices are going to rule. Another advance in various grades of pig-iron is anticipated this week.

## STEEL AND IRON PRICE CHANGES.

(Dealers' average buying prices for gross tons.)

Bessemer billets (nominal).....	\$45.00—\$50.00
Open-hearth billets (nominal).....	45.00—50.00
Open-hearth sheet bars.....	45.00—50.00
Bessemer sheet bars (nominal).....	45.00—50.00
Forging billets.....	65.00—70.00
Wire rods.....	60.00
Muck bars.....	40.00—45.00
Beams.....	2.60—3.00
Tank plates.....	3.00—4.00
Steel bars.....	2.60—
Common iron bars.....	2.60—2.70
Rails.....	47.00—48.00
Steel hoops.....	3.00—3.25
Cold-rolled strip steel.....	6.00—6.50
Sheets, No. 28 gauge.....	3.25—
Galvanized sheets.....	4.50—
Wire nails, No. 28.....	2.60—
Cut nails.....	2.60—
Plain fence wire, base.....	2.55—2.65
Barb wire, galvanized.....	3.45—
Railroad spikes.....	2.65—

## Pig-Iron.

Bessemer, Pittsburgh.....	\$23.45—\$24.45
No. 2 foundry.....	20.15—
Basic, valley.....	20.15—
Gray forge.....	20.45—
Basic, Philadelphia.....	20.00—20.50
No. 2 foundry, Northern.....	19.75—21.00
Low phosphorus.....	31.00—32.00
No. 2 foundry, Buffalo.....	19.75—20.00
No. 2 South, Cincinnati.....	17.40—17.90
Basic, del., Eastern Pennsylvania.....	19.50—20.00
Bessemer, Cleveland.....	23.00—23.50
Northern foundry, No. 2, Cleveland.....	20.00—
Gray forge, valley.....	20.00—

## Scrap Iron and Steel.

Heavy melting steel.....	\$17.75—\$18.25
Old steel rails, rerolling.....	19.00—19.50
Old iron car wheels.....	14.50—15.00
Old steel car wheels.....	18.50—19.00
Steel car axles.....	25.00—26.00
Iron car axles.....	28.00—29.00
Low phosphorus.....	21.50—22.00
Heavy cast scrap.....	14.50—14.75
No. 1 railroad, wrought.....	19.25—19.50
Machine shop turnings.....	8.50—8.75
Stove plate.....	11.50—12.00

## METAL MARKET CONDITIONS STILL UNSETTLED OVER SUBMARINE RAIDS.

**Buyers Hold off from Making Purchases—Lead and Spelter Become Suddenly Inactive—Tin Soars in Price—Copper Continues Steady—Firm Undertone in all Markets Still Maintained.**

New York, October 16—[Special.]—While the excitement which prevailed in the metal markets last week, as a result of a German submarine raid on the Atlantic coast off Nantucket Lightship, has quieted down somewhat, the markets themselves have not recovered from its effects. Tin, of course, was the chief metal to feel the results of the raid, and the implied threat of Germany to put a sudden stop to the shipments of war munitions abroad, coupled with the small amount of tin afloat to this country, naturally caused great buying activity on the part of domestic consumers and prices sharply advanced.

The effect upon the metal markets in general was





## RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

### NEW LINES FOR OKLAHOMA.

#### Oil Developments Inspire Great Activity in Railroad Construction.

Newkirk, Okla., October 16.—[Special.]—The various Oklahoma oil fields have been the source of inspiration for the building of railroads in this State for several years. When a new field is opened and proven productive there is always a railway completed to its center in order to cut out long hauls by wagons to convey materials to the ground. This is what is causing the Oil Fields Short Line to be constructed seven or eight miles into the heart of the Kay county or "Blackwell" oil field. It will be completed in about a month, and will connect the Frisco Railroad at Peckham, Okla., with the new field and the industrial town of Dilworth, recently located at the end of the new road.

The Frisco line runs southwest from Arkansas City, Kans., through Blackwell and Enid, Okla., and on to Vernon, Tex. The Oil Fields Short Line is being built by J. A. Frates, who resigned June 1 as general superintendent of the Frisco system to take up on his own account the construction of short line roads. It is understood that he has several others in contemplation. He is president of the Sapulpa & Oil Field Railroad, completed several months ago from Depew, Okla., to Shamrock, the center of oil production in the Shamrock or southern extension of the Cushing field. He says the Oil Fields Short Line will be finished by November 1 at the latest. It leaves the Frisco six miles west of Newkirk, and the citizens here have made a proposition to Mr. Frates to extend the line eastward to this place, the county-seat of Kay county, which, in addition to being an oil-producing area, is also a great wheat-producing section.

This makes the fifth oil field railroad built in Oklahoma during the past three years, the others being the Oklahoma, New Mexico & Pacific, which was built from Ardmore into the Healdton oil field by John Ringling, the circus manager, and Jake L. Hamon; the Oil Belt Terminal road, built from Jennings south to Oilton, in the Cushing field, by former Governor C. N. Haskell; the Cushing Traction Line, built from Cushing eastward into the Cushing oil field by R. D. Long of Muskogee, and the Sapulpa & Oil Field road, built by J. A. Frates and his associates from Depew to Shamrock.

Only recently what is known as the Fox oil field has been opened, about six miles north of the Healdton field in Southern Oklahoma, and already there are several railway lines under contemplation for extensions there. John Ringling is on the ground, investigating the feasibility of an extension of the Oklahoma, New Mexico & Pacific from either Wilson or Ringling. The Santa Fe officials are having a survey made, contemplating an extension from Ardmore to the new field while the Ardmore Railway Co. an electric line corporation, has its engineers in the field for an interurban from Ardmore to the same point. It is believed that the electric line is a certainty.

It is announced from Ringling also that the Southwestern Railway Co. has under consideration an extension from Henrietta, Tex., to Ringling, and perhaps as far northward as Oklahoma City. A. C. Parks of Henrietta, vice-president of the road, recently visited Ringling, and is quoted as declaring that the road will be built into Oklahoma.

The zinc and lead fields of this State, in the north-eastern portion, are likewise the scene of considerable railroad activity. The Missouri, Oklahoma & Gulf Railroad is getting ready to extend six miles from Baxter Springs to Mineral, Kans., where a connection will thus be made with the Missouri, Kansas & Texas road. The grade stakes have been set, and it is announced that the line will be completed by January 1.

An electric line from Bartlesville, Okla., eastward to Miami, the center of the zinc fields, is also being considered. F. M. Overlees, D. B. Mason and M. H. Overlees of Bartlesville, together with W. K. Palmer of the Palmer Engineering Co. of Kansas City, Mo., went over the proposed route of this line the past week, prospective to construction. The plans include an extension west-

ward from Bartlesville to Pawhuska, the official seat of the Osage Indian country. There is an electric line, known as the Oklahoma, Kansas & Missouri Interurban, running from Miami through the mining district, and its lines are now being extended through the business district of Miami, thus creating a city railway system.

Another line of railway which is to be built soon in Oklahoma will extend southward from Caney, Kans., through the Osage country to Pawhuska. While it will be built as an independent line, it is understood in reality to be a Santa Fe extension to connect its Independence branch at Caney with its Eastern Oklahoma line at Fairfax, 10 miles west of Pawhuska.

### THE SOUTH'S PROGRESS TOLD.

#### Fairfax Harrison, President of the Southern Railway, Makes Graphic Report.

President Fairfax Harrison of the Southern Railway tells a graphic story of development and progress in the South in the annual report of the company, which has just been issued.

Along the lines of the system, during its year ended June 30, 1916, there were established 684 new industries, with a total capital investment of \$35,244,550, and there were also additions made to 320 previously established manufacturing establishments, at a reported cost of \$16,888,950. There were, furthermore, 50 plants under construction at the end of the year, with a capital of \$16,327,700. General improvements, public utilities, etc. (excepting buildings used in manufacturing), cost \$67,548,640. The new plants completed during the twelvemonth were as follows: Brick, tile, etc., 16; canneries, 9; cheese factories, 8; chemicals, 14; cottonseed products, gineries, etc., 21; creameries, 6; fertilizer, 5; flour and feed, 108; furniture, 12; iron products, 24; lumber, 122; power developments, 13; stone, coal, mineral, etc., 61; tanneries, 7; textile, clothing, etc., 30; woodworking, 24; miscellaneous, 204; total, 684.

President Harrison also observes that the advantages of farming in the South are becoming more widely known, with the result that many substantial farmers are being attracted there. Along the lines there were 862 sales of farm lands during the year, of which 447 were to purchasers from the North and West; yet this was by no means representative of the total movement of agriculturists from those sections to the South, but only of those from whom definite reports could be secured.

He also remarks upon the rapid adoption of systems of diversified farming and crop rotation, coupled with the raising of livestock, and the advantages resulting from them. Incidentally the productivity of the soil is being increased with larger yields of crops per acre. The much lower cost of stock raising in the South as compared with some other sections of the country is dwelt upon, as is the growth of this industry and the improvement in the general quality of Southern farm animals. There were 5836 pure-bred cattle placed on farms along the Southern Railway in the year, and 1243 silos were built. The company continued its policy of co-operation with both State and Federal governments, agricultural colleges and farmers for agricultural development. There were 12,156 miles of improved country roads built in the calendar year 1915, and the Southern Railway paid road and bridge taxes amounting to \$485,524.35, equal to interest on \$8,002,000 of 6 per cent. county road bonds, thus contributing substantially to the good-road movement in the South along its lines.

The income statement for the year shows: Total operating revenues \$69,997,675.24, increase as compared with last year's report \$7,798,165.71; total operating expenses \$46,041,116.12, decrease \$133,594.47; net revenue from operations \$23,956,559.12, increase \$7,931,760.18; total operating income after taxes and uncollectible revenue (the latter were only \$36,127.38) \$21,004,005.00, increase \$7,603,950.51; total gross income \$24,426,031.18, increase \$7,787,058.85; total available income after deductions for rentals, etc., \$20,540,127.44, increase \$7,787,756.21; balance of income over interest on funded debt, etc., \$9,333,898.61, increase \$7,733,341.57; balance carried to credit of profit and loss \$9,245,703.58, increase \$7,722,334.26. As com-

pared with 1913, the year of the previous high record, this shows an increase of \$2,215,738.80.

There was greatly increased efficiency in the operation of the road. Transportation costs, according to President Harrison, were 11.18 per cent. less than last year and over 10½ per cent. less than in the year before. Particular attention was paid to the loading of trains, and the average trainload was raised from 382 tons to 442 tons as compared with last year. In 1914 the average trainload was but 339 tons. Traffic characteristics and other conditions peculiar to the Southern Railway limit efforts in this direction.

### \$400,000 FREIGHT STATION.

#### Norfolk & Western Railway's New Facilities at Roanoke, Va.

The new freight station which the Norfolk & Western Railway will build at Roanoke, Va., will cost nearly, if not quite, \$400,000, according to a report from there, which says that the announcement has just been made by officials. The station will front on Commerce street, where it will have a two-story freight office 140x50 feet. Extending back from this, parallel with Ernest avenue on one side and the main line tracks on the other, will be the freight depot, 740x55 feet, having a driveway between it and the avenue. On the other side of the depot, and between it and the main line, will be two parallel covered transfer sheds, each 800 feet long by 18 feet wide. These may be lengthened toward Park street at the rear of the station site if desired. There will also be two other covered transfer sheds in the rear of the freight depot, each 315 feet long and 18 feet wide.

The freight office building will be of brick and the freight depot itself will be of brick and steel. It will have wide rolling steel doors for the ingress and egress of freight to and from teams, etc. With these facilities 127 cars may be placed for loading or unloading at one time. The station and yards will be three blocks long, and to make way for this improvement a number of buildings will have to be removed from the site, necessitating the transfer of sundry enterprises to other locations. The work is to begin as soon as possible.

Another improvement which the Norfolk & Western will also make soon is the extension of its electric signaling system on the Radford-Bristol division.

### \$4,250,000 ELEVATED RAILROAD AND BRIDGE.

#### Contract Let by Kansas City Terminal Railway for Double-Deck Structure.

A double-decked bridge, 734 feet long, over the Kansas River, and an elevated railroad structure of steel and concrete, 7300 feet long, all to cost \$4,250,000, will be built by the Kansas City Terminal Railway Co. over the Kaw Valley bottoms. The upper deck of the bridge will be used by passenger trains and the lower deck by freight trains.

Contract for the construction has been awarded to the Arkansas Bridge Co., Waldheim Building, Kansas City, Mo., and it is to be completed by February 1, 1918.

Estimates say that the materials required will include 25,000 tons of steel, 2000 carloads of rock, 1000 carloads of cement, 1000 carloads of sand, 3,000,000 feet of deck timbers, 250,000 feet of falsework, 200,000 feet of piling, etc.

### CENTRAL OF GEORGIA'S YEAR.

#### Income Statement Shows Gains—L. W. Baldwin Elected a Vice-President.

C. H. Markham, chairman of the board of the Central of Georgia Railway, says in its twenty-first annual report, which covers the year ended June 30, 1916, that there was an increase of more than 5 per cent. in the revenue from freight and of more than 1¼ per cent. in the revenue from passengers as compared with the preceding year. The ratio of operating expenses to gross revenue was 70.38 per cent., a decrease of 3.73 per cent.

The total operating revenues of the line were \$12-



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367,618.29, increase as compared with 1915, \$459,433.89; total operating expenses \$8,845,067.22, decrease \$128,444.38; net revenue \$3,722,551.07, increase \$587,878.27; operating income after taxes and uncollectible revenues (the latter only \$15,741.95) \$3,067,288.78, increase \$519,655.68; gross income \$4,605,021.42, increase \$701,390.12; net income \$1,921,312.99, increase \$719,307.88.

The company has considerably improved its property and equipment, the work on the former including laying new rails, adding tie plates, etc., to the track, building 41 new industrial tracks, although 17 were removed, so that the net increase was 24. There was also a net increase of 62 in the number of the company's sidings. A telephone dispatching line was erected between Savannah and Macon. Several important improvements were also made at Macon in connection with the new station of the Macon Terminal Co. The company bought four locomotives, and it also built in its own shops 24 flat cars and 37 ice cars. There were altogether 1061 freight cars added to the equipment, but the net increase was 382 cars, because a number were retired from service.

The total assets of the company are \$75,568,085.80, increase \$1,713,677.21. L. W. Baldwin, general manager, was on October 11 elected a vice-president of the company, so that he is now vice-president and general manager.

## WESTERN MARYLAND TO ALEXANDRIA.

### Negotiations for Connection With Washington & Old Dominion Railway.

The Western Maryland Railway Co. is considering plans to obtain an entrance to Alexandria, Va., by means of a connection with the Washington & Old Dominion Railway, which would enable it to connect directly with the Southern Railway, the Atlantic Coast Line, the Seaboard Air Line and the Chesapeake & Ohio Railway. Negotiations are in progress, but no decision has yet been reached.

Some new construction would have to be done to make the necessary connection between the two roads. The Washington & Old Dominion Railway runs from Washington to Bluemont, Va., in Loudoun county, and the nearest point on the Western Maryland is at either Hagerstown or Williamsport, Md., 35 miles away. But if the Western Maryland could arrange for the movement of coal trains over the branch of the Baltimore & Ohio Railroad which runs from Hagerstown down to the Potomac River, only about 15 miles of new construction would be required. It is not unlikely that this could be done, as the relations of these two roads are close, the Western Maryland already having an arrangement with the Baltimore & Ohio for moving coal from West Virginia to Connellsville, Pa.

According to recent official information, it will probably be some time before the negotiations are concluded.

## One Railroad's Agricultural and Industrial Work.

J. C. Clair, industrial and immigration commissioner of the Illinois Central Railroad, contributes to the Illinois Central Magazine for September an interesting and instructive article describing the development work of his department during the company's year ended June 30, 1916. He says that there were located on the system since the same date in 1915 124 new industries, with a capitalization of about \$17,139,500 and 5772 employees. There were also settled 233 families, representing about 1000 individuals and the purchase of 142,200 acres of land.

Mr. Clair remarks that planters in the Southern Mississippi Valley are now to a very large extent producing their own foodstuffs, having realized the great importance of doing so. Whereas they used to buy pork, lard, corn, hay and other things from the Northern States, they are now growing these on their own farms. The company's demonstration farms, which number 32 in Kentucky, Tennessee, Alabama, Mississippi and Louisiana, are credited with being in large measure instrumental in securing this result. There is no longer dependence upon the cotton crop alone to supply from its proceeds all that the people require. Dairying and livestock raising have also been encouraged in most practical ways. A number of fine cattle

have been distributed, and these industries are being more and more engaged in by residents of the South. The company has offered five pure-bred bulls as prizes to the Baby Beef Clubs of each county on its line in Mississippi that is free from the cattle tick. They will be given to the prize winners at the Mississippi State Fair this month. Five Holstein bulls have also been given as prizes to the Boys and Girls' Dairy Club at Martin, Tenn. The long grazing season and mild climate of the South offer unusual opportunities for cattle raising, especially sheep. Several views of scenes around Water Valley, Miss., accompany the article.

## New Equipment.

Chesapeake & Ohio Railway has ordered 10 passenger cars, 2 parlor cars and 1 dining-car from the Pullman Company, Pullman, Ill.

Wheeling & Lake Erie Railway has ordered 1000 gondola cars, of which 500 will be built by the Pressed Steel Car Co. and 500 by the Standard Steel Car Co., Pittsburgh.

Louisville & Nashville Railroad is reported in the market for 1000 hopper cars, 1000 gondola cars and 750 box cars.

Baltimore & Ohio Railroad is expected to add 100 cars to its passenger equipment.

Pennsylvania Railroad is expected to soon ask for bids to build 10,000 cars of various types.

Atlanta, Birmingham & Atlantic Railway has ordered 3 Santa Fe type locomotives from the Baldwin Locomotive Works, Philadelphia.

Towson & Cockeysville Electric Railway, Towson, Md., recently placed in operation an 18-foot storage battery car built by the J. G. Brill Company, Philadelphia.

## Official Changes.

Gen. George F. Randolph, vice-president of the Baltimore & Ohio Railroad system, has been elected commissioner of the Trunk Line Association and the Central Freight and Passenger Associations and for the New England railroads. He will enter upon the discharge of his new duties November 1, leaving the Baltimore & Ohio Railroad, with which he has been connected for 20 years, the last 12 of which he has been traffic vice-president. In connection with the announcement of his selection for the new post it is stated that he will be chief executive of the several associations, although their respective chairmen will continue to perform their duties as before. He will decide all differences between the associations and in other ways adjust matters with a view to attaining the utmost harmony in the workings of the various bodies to their mutual advantage.

S. Davies Warfield, president of the Continental Trust Co., Baltimore, has been elected a director of the Chicago, Rock Island & Pacific Railway, together with James Speyer, Seward Prosser and James Alexander of New York, who are also newly-elected members of the board.

J. A. Shepherd has been elected president and general manager of the Trans-Mississippi Terminal Railroad Co. at New Orleans, succeeding J. L. Lancaster, resigned. He was formerly superintendent of terminals for the Missouri Pacific Railway at Kansas City. W. E. Brooks, superintendent of the Missouri Pacific at Jefferson City, will succeed him.

R. S. Marshall has been appointed assistant general manager of the Seaboard Air Line Railway, with headquarters at Norfolk, Va. He has been superintendent at Richmond. G. R. Carlton succeeds him, and he, in turn, is succeeded by H. B. Grimshaw.

John A. Streyer has been appointed general manager of the Macon, Dublin & Savannah Railway, succeeding H. B. Grimshaw, resigned to become superintendent of the Georgia division of the Seaboard Air Line.

## Tennessee Central to Be Sold.

The Tennessee Central Railroad is to be sold at auction, according to an order of the United States Circuit Court at Nashville, and it is expected that the sale will take place soon after January 1, following the necessary legal preliminaries. E. L. Doak was appointed to conduct the sale. The upset price is \$1,250,-

000 above the prior lien mortgage for \$4,014,000. The road is 251 miles long from Harriman, Tenn., via Nashville to Hopkinsville, Ky., with two branches, one of 7 miles to Carthage and the other of 21 miles to Wilder and Davidson. H. B. Chamberlain and W. K. McAlister are the receivers, and Rutledge Smith is agent for them, all at Nashville. There are 37 locomotives and 686 cars. The property will be sold subject to obligations and prior claims, which must be assumed by the purchasers. These include some pending damage suits.

The annual report of the receivers shows that the total operating revenues for the year ended June 30, 1916, were \$1,619,237.78, increase as compared with the next previous year \$137,833.30; total operating expenses \$1,277,845.93, increase \$18,394.94; net revenue from railway operations \$341,391.85, increase \$119,438.36; operating income after taxes and uncollectible railway revenues \$285,634.04, increase \$119,914.14; gross income \$291,278.72, increase \$122,217; net income after total deductions from gross \$512,248.45, deficit, decrease \$121,654.07. Operating ratio was 78.92 per cent., decrease 6.10 per cent.

## A Year's Work of Southern Railway's Coal Pier at Charleston.

The Southern Railway Co. reports that the first year of operation of its modern export coal tippie at Charleston, S. C., has closed with a record which promises great expansion and prosperity for the city.

During the year, when there was an abnormal scarcity of ships, 98 steamships have taken coal from the Southern's Charleston pier for movement overseas, 7 taking cargo, 14 cargo and bunker and 77 bunker only. Of the cargoes, 14 moved to Cuba, 6 to South America and 1 to Spain.

The export movement amounted to 63,123 tons, while 40,086 tons were bunkered. There was a coastwise movement of 46,255 tons, making a total of 149,464 tons of coal dumped over the pier.

In addition to this, 2066 tons of iron ore and 2114 tons of coke were exported.

## Federal Regulation of Railroads.

R. E. Ireton, LL.B., of the editorial department of the Railway Executives Advisory Committee, has contributed to a recent issue of "Case and Comment" an article entitled "Regulating Railroads Through Federal Incorporation," in which the problem confronting Senator Newlands' committee is deeply considered and discussed, with quotations from decisions and opinions of legal authorities. He points out that Federal authority regarding the railroads "should be exercised in the beginning and not by way of review." Railroad men and others interested will find themselves well repaid by a perusal of the article.

## To See New Orleans Belt Line.

Mayor James H. Preston and other city officials of Baltimore will go to New Orleans for the purpose of making an inspection of the New Orleans Belt Line Railroad and its operations. The Board of Estimates and the City Council will be represented in the party, the object of which is to gather information which will be of value to the city of Baltimore in completing its own belt line around the harbor, which is already partly built on Key Highway. Mayor Martin Behrman of New Orleans invited the Baltimoreans to see the road there, and an early visit is expected.

## Engineering and Hardware.

Blair, Reed & Co., engineers and machinery inventors, Nathan's Buildings, Wellington, New Zealand:

"Our lines are engineering and hardware, exclusive of motor cars and agricultural machinery, as these particular lines are handled by firms specializing in them only. We pay cash against documents New York, so our financial standing need not concern any of our suppliers, but we refer you to R. G. Dun & Co.'s mercantile agency as to our commercial and financial standing."

## Good Roads and Streets

### SOUTHERN HIGHWAY ACTIVITIES.

Details in regard to road and street undertakings and bond issues, briefly mentioned below, are given under the proper headings in our "Construction Department" and "New Securities," published elsewhere in this issue.

#### Bonds Voted.

Austin, Tex.—City will issue \$64,000 bonds for street paving.

Fairfield, Tex.—Freestone county voted \$27,000 bonds to construct roads.

Lewisburg, W. Va.—Greenbrier county voted \$103,000 bonds for road improvements.

Morganton, N. C.—Burke county voted \$20,000 bonds to construct roads.

Oxford, N. C.—City issued \$180,000 bonds to improve streets.

Rockingham, N. C.—Richmond county voted \$50,000 bonds for road improvements.

Waxahatchie, Tex.—City voted \$120,000 bonds to pave streets, etc.

#### Bonds to Be Voted.

Ellisville, Miss.—Jones county votes November 3 on \$200,000 bonds for road construction.

Grafton, W. Va.—Taylor county will vote on \$110,000 bonds to improve roads.

Lawton, Okla.—Comanche county contemplates voting on \$250,000 bonds to improve roads.

Lewisburg, W. Va.—Greenbrier county votes November 7 on \$121,000 bonds to improve 12 miles of road.

Paducah, Ky.—McCracken county votes November 7 on \$200,000 bonds for road construction.

#### Contracts Awarded.

Durham, N. C.—City awarded contract for 8000 square yards sheet asphalt.

El Dorado, Ark.—City awarded contract for 40 blocks of street paving.

Emmitsburg, Md.—City awarded contract for street improvements; \$2500 available.

Gilmer, Tex.—Upshur county awarded contract for 12 miles of road.

Hopkinsville, Ky.—Montgomery, Perkins & Co. have \$28,338.60 contract to construct water-bound macadam pavements requiring 7000 cubic yards of macadam and 30,000 cubic yards of grading.

Kansas City, Mo.—City awarded \$30,285 paving contract.

Lake Helen, Fla.—City awarded contract for one mile of cement sidewalks.

Shreveport, La.—Caddo parish awarded \$8752 contract for road improvements.

Washington, D. C.—City awarded contract to grade and improve streets; cost \$73,000.

#### Contracts to Be Awarded.

Barbourville, Ky.—Knox county asks bids until October 28 to grade 15 miles of road; also construct two miles of macadam road.

Camden, Ark.—Ouachita county has plans for sand and clay road construction to cost \$25,000.

Centerville, Ala.—Bibb county will expend \$9500 for road improvements.

De Land, Fla.—Volusia county asks bids until November 6 for nine miles of highway construction.

Fellsmere, Fla.—City will construct six miles of paving, etc.; estimated cost \$100,000.

Grenada, Miss.—Grenada county asks bids until November 6 to construct about 85 miles of sand-clay roads.

Jonesboro, Ark.—Craighead county has plans for 14 miles of gravel and asphalt macadam road; estimated cost \$60,000.

San Antonio, Tex.—Medina Lake Toll Road Co., capital \$25,750, will construct 6½ miles of road.

Walnut Ridge, Ark.—Lawrence county has plans for 5½ miles of macadam road; estimated cost \$25,000.

Weatherford, Tex.—Parker county contemplates improving 180 miles of roads at an estimated cost of \$600,000.

### Monolithic Brick Paving Demonstrated During Meeting of Brick Manufacturers.

One of the most interesting features of the two-day annual convention of the National Paving Brick Manufacturers' Association at both Terre Haute, Ind., and Paris, Ill., on October 5 and 6 was the demonstration of the actual paving methods in laying a 12-foot curbless monolithic pavement on a rural road about two miles north of the business section of Paris.

This was not a "staged" demonstration, but a part of the actual contract for the improvement of this road now being carried out by Contractor Allan J. Parrish under the general supervision of Engineer W. T. Blackburn, both of whom have been largely instrumental in the development of this class of brick pavement.

More than 400 engineers, officials and men of technical pursuits viewed the work and were able to study each step in the paving process, including the laying of the concrete base, the operation of a double template which leveled the concrete and spread a dry mix of mortar and the rapid laying and grouting of the brick surface. They also witnessed a notable example of efficiency in paving work as conducted by Contractor Parrish, who stated at the end of the day he had laid 800 yards of pavement, although his work was somewhat interfered with in demonstrating the features to the visitors.

Another feature of the meeting was the inspection of some of the more conspicuous examples of brick paving in Terre Haute. Among these was South Sixth street, where the brick pavement was laid in 1891, thus having been down for over 25 years, and is still in a good condition. Another was North Seventh street, which is an example of the latest type of monolithic construction, thus bringing into direct contrast the old method with the new.

At the business session of the association the following officers were re-elected:

President—C. C. Blair of the Besemer Limestone Co., Youngstown, O.

Vice-President—J. W. Robb of the Clinton Paving Brick Co., Clinton, Ind.

Treasurer—C. C. Barr of the Barr Clay Co., Streator, Ill.

Secretary—Will P. Blair, Cleveland, O.

At the conclusion of the meeting a banquet was tendered the members and their guests, at which addresses were made by Joe L. Long, editor of the Road Maker; Spencer F. Ball, president Chamber of Commerce, Terre Haute; Clinton Cowen, highway commissioner of Ohio; W. W. Marr, chief engineer of the Illinois Highway Department; Prof. Leonard S. Smith, University of Wisconsin; Prof. Ira O. Baker, professor of civil engineering, University of Illinois, and President C. C. Blair of the association.

### \$6,075,846 FOR ARKANSAS ROADS.

#### 1297 Miles of Highways Provided for by New State Road Law.

Total expenditures of \$6,075,846 for 1297 miles of highways are provided for by the new (Alexander) State road law of Arkansas. Districts have already been formed for 250 miles of highways, costing \$1,500,000, and these roads have either been built or are under construction. Additional districts now being formed provide for an expenditure of \$4,575,846 for building 1047 miles of highways. These improvements are distributed throughout 16 counties and are under the direction of the State Highways Commission, Hugh R. Carter, State Highway Engineer, Little Rock, Ark.

The foregoing data has been announced by the State Highways Commission, and it emphasizes that the officials are proceeding promptly and rapidly, in accordance with the law mentioned, to provide their State with a complete modern system of highways. These roads will assist most materially in the further development of Arkansas' natural resources, which are attracting more attention from day to day.

### \$275,000 Paving Improvements at Macon.

An official statement has been issued relative to the progress of paving improvements at Macon, Ga., more than \$275,000 having been expended during the past 15

months. In this period the city has had 222,865 square yards of paving constructed at a cost of \$269,644. This amount does not include grading and various other accompanying expenditures, which increase the amount to about \$300,000. The city officials have sufficient funds remaining from the \$120,000 bonds issued some time ago to pave three streets and to resurface three others. It is understood that plans and specifications will soon be prepared for these further improvements so that proposals can be invited.

### Annual Meeting of American Road Builders' Association.

The annual meeting of the American Road Builders' Association will be held November 3 at the Automobile Club of America, 247 W. 54th street, New York, N. Y. The sessions will commence at 2 P. M. Aside from a meeting of the board of directors and reports of officers and committees, the principal interest of the meeting will center in the election of officers for the year 1916-1917. This is now being conducted by means of a mail ballot, but the polls will not close until 4 P. M. on the day of the meeting. The result will be announced at the annual "get-together" dinner, which will be held in the grillroom of the Automobile Club of America in the evening.

### \$104,000 Asphaltic Concrete Contract.

The city of Sand Springs, Okla., has awarded a \$104,283.58 contract for street paving. This contract calls for 48,000 square yards of asphaltic concrete, with accompanying curbs, basins, sewer pipe, etc. It was obtained by the Standard Paving Co. of San Antonio, Texas.

## TEXTILES

### HAMILTON CARHARTT COTTON MILLS NO. 2.

#### \$300,000 Additional Cloth Mill and Village for South Carolina Enterprise.

From cotton in the field to finished cloth ready for manufacturing overalls and other similar clothing will be the product of the Hamilton Carhartt Cotton Mills No. 2, which that Rock Hill (S. C.) company will build at Carhartt, on the Catawba River, six miles from Rock Hill, on the Southern Railway. This \$300,000 plant will have a capacity of 11,000 spindles and 350 looms with accompanying machinery, the entire construction being in charge of N. Gaillard Walker, architect-engineer, Rock Hill. It will be built in three units, each for 3000 spindles and 116 looms, contract for the first unit having been awarded to Sellers & Paggett of Columbia, S. C. Within two years the three units are to be completed. The main mill will be three stories high, of brick and heavy frame construction, with solid section steel sash openings; will spin, weave and finish denim and other cloth, which will be manufactured into overalls, etc., at the Detroit factories of Hamilton Carhartt, president of the mill corporation. Electricity for light and power will be obtained from the Southern Power Co. A steam plant with two 125-horse-power boilers will furnish the steam for dyeing, finishing and heating.

The mill village is on the side of a hill separated from the mill site by a small branch. A street connects the two sides. The village streets are in long conflicting ovals, so that all the houses on the side hill will directly face the mill across the branch bottoms. The conflicting areas or circles formed by street junctions will be made into civic centers; the one on the center of the hill will be used for the community house, and the one on the top of the hill will be occupied by a high Dutch windmill, built of native field rock and containing the storage tank for water-works to which water will be pumped from a deep well by the windmill and auxiliary motor. This village is planned to accommodate 1000 people, the homes being of individual type, from three to six rooms each, designed after the English parish-house of rough cast stucco, and some with wood shingle thatched effect roofs. Each house will have a front



lawn, vegetable garden, electric wiring, water supply, sewer system and bath with toilet equipment.

The Carhartt enterprise will be unique in handling cotton from seed to finished cloth. The Carhartt plantation grows from 300 to 400 bales of raw cotton each year, which will be consumed by the new mill. Adjacent to the new site the owners are erecting a cotton gin and seedhouse, so that the plantation hands will deliver their day's pickings direct to the gin, from which a chute will carry the bales across the mill spur track to the warehouses, and from there to the mill picker-house. Another chute from the gin will carry the cottonseed to a storehouse, from whence it will be loaded directly into railway cars for shipment to the oil mill.

The present plant of the company at Rock Hill manufactures dyes and finishes cottonades, denims and shirt-ings. Its equipment is 11,400 ring spindles and 413 looms.

### Hosiery Mill Location Wanted.

Seeking a suitable location for a hosiery knitting mill, J. F. Carter, Jr., 1005 Dauphin street, Mobile, Ala., writes to the MANUFACTURERS RECORD:

"Preference is for small city or town in South, where concessions will be offered for a plant which will employ 100 people. Output of plant is already sold. With offers must also be letter stating nearest location of cotton mill producing hosiery yarns, freight rate from that mill, freight rate on hosiery to Philadelphia and New York, charges for electric power, tax rate, license rate and approximate number of young men and young women labor. First letter must contain all information and offers, as decision will be reached at once."

### United States Leading in Growth of Cotton Industry.

The growth of the world's cotton industries is shown in the annual cotton handbook of London, the latest issue of which is reviewed by the Textile Mercury of Manchester, England. The present total of the world's cotton spindles is 151,667,000, compared with 94,568,000 21 years ago. The greatest advance has been made in the United States. Since 1904 there has been an addition of more than 40,000,000 spindles throughout the world, and since 1895 about 57,000,000. There are now 6513 cotton firms in all cotton-spinning countries.

### \$50,000 Hosiery Mill Company.

The Johnson City Mills of Johnson City, Tenn., has been incorporated with \$50,000 capital stock to build a plant for manufacturing knit hosiery; Ben A. Morton, president; J. P. Roddy, vice-president; T. F. Dooley, secretary-treasurer.

## MECHANICAL

Illustrations and descriptions having news value pertaining to developments in machinery, mechanical devices and inventions will be considered for use in this department.

### Electrically-Operated Zinc Mine and Plant.

The Granby Mining & Smelting Co.'s Klondike mine and concentrator at Granby, Mo., is a typical electrically-operated zinc mine and plant.

This plant, which is of recent design, embodying all modern engineering features applicable to mining in the Joplin district, is supplied with three-phase 25-cycle power from lines of the Empire District Electric Co. of Joplin, Mo., power being generated in their hydro-electric plant on the White River and transmitted to Granby at 66,000 volts. Transformation is effected to both 2300 and 220 volts, the voltage depending on the service and location of the motor, 220 volts being employed underground for pumping and lighting and on the surface for hoisting. All motors (with the exception of the hoist motors) are form "K" induction type, all furnished by the General Electric Co. of Schenectady, N. Y. These motors have given uninterrupted and highly satisfactory service since their installation one year ago.

The ore deposit lies at a depth of 215 feet, and has

an average thickness of 25 feet. It is a flat zone of brecciated chert through which the mineral sphalerite or "Jack," as it is termed locally, is disseminated. The deposit is being worked through two vertical shafts some 600 feet apart, and which are connected by a drift to afford ample ventilation for the various working faces. The mining method employed is the "drift-stope" system, in which a small drift about seven feet high is driven ahead at the top of the ore horizon, and a steeply pitching stope down which the broken rock slides is carried below. All rock drills are 3 1/4-inch piston drills manufactured by the Ingersoll-Rand Company, New York, to which air is furnished at 100 pounds gauge pressure from Laidlaw-Dunn-Gordon two-stage feather valve type compressors located on the surface. These compressors are very efficient, having shown a volumetric efficiency of 86 per cent. by orifice meter and a mechanical efficiency of 92 per cent. The installation comprises three compressors having a combined capacity of 2000 cubic feet of free air per minute, close-belted to electric motors, this system proving more efficient than long belt drive due to the decreased slippage on account of the large area of contact of belts on pulleys and a decrease in floor space required. It is also believed that the life of belts will be as great as if long belt drives had been employed due to the nicety of balance of the floating idlers, which compensate for all changes in atmospheric conditions, belt stretch, etc. The new feather valves obviate the necessity of all moving parts, such as eccentrics which are necessary for the operation of Corliss inlet and poppet discharge valve type compressors, and there is a consequent increase of speed possible, the compressors in question being driven at the remarkably high speed of 2663 R. P. M.

The broken ore is shoveled into "cans" of 1000 pounds capacity and trammed to the shaft. These shovelers work on a contract basis, receiving 5 to 10 cents per can, and it was not uncommon for a shoveler to make as high as \$50 per week during the recent high zinc ore market. The cans are hoisted and dumped into the rock bins at a high rate of speed, as many as 700 cans being hoisted in a single shift of eight hours. The hoists are single drum, geared to General Electric motors, and have a rope speed of 1500 feet per minute.

The inflow of water at the Klondike mine is small, and of varying quantity, depending entirely on the amount of precipitation. For this reason two-stage centrifugal pumps were installed, being so highly adapted to throttling, to meet the varying quantities of water to be pumped. The pumps are Cameron turbines furnished by the A. S. Cameron Steam Pump Works, New York, directly connected to 50-horse-power electric motors, and have a maximum capacity of 460 gallons per minute at 1500 R. P. M. Although having a lower efficiency than electrically-driven plunger pumps, the centrifugal pumps are lower in first cost and better adapted to existing conditions.

The ore is broken to pass a five-inch Grizzly before entering the mill bins, from where it is fed into crushers and rolls and sized to three-eighths inch. The coarse particles are subjected to jigging on four Harz type jigs of from five to six cells each, the sands being treated on 19 Wilfley type table docks. The ore is readily amenable to oil flotation, there being no lead present, with the consequent difficult two-way preferential separation. Flotation is therefore practiced on all slimes minus 80 mesh, which are previously thickened to 3:1 consistency in Dorr thickeners, the flotation concentrates being steam dried in tanks.

The capacity of the Klondike concentrator is 1000 tons of rock per 24 hours. It is electrically driven throughout, requiring motors giving 363 combined horse-power, the aim being to drive each department with separate motors, thus making it an independent unit and realizing great flexibility of operation. The jigging unit is driven by a 200-horse-power motor; the table unit by a 50-horse-power motor; the flotation unit by a 50-horse-power motor; the Dorr thickeners by a three-horse-power motor, and the mill supply pump by a 75-horse-power motor.

### Increasing Use of "Exide" Batteries Forces Enlargement of Atlanta Branch.

Five years ago an Exide battery depot was opened in Atlanta in a little store on Marietta street. It was the first exclusive electric storage battery station in the

city. So extensively was it appreciated that in 12 months the company was compelled to move into new quarters. Another 24 months passed, and once more lack of space forced the company to seek larger quarters. Now the Electric Storage Battery Co. and the Exide Battery Depots, Inc., of Philadelphia, have moved into their new Atlanta branch at the corner of Baker and West Peachtree streets. The Electric Storage Battery Co. has previously been located in the Candler Building, and the Exide Battery Depots, Inc., at 20 S. Piedmont avenue.

The new building occupied by these companies is two stories high, and so constructed that a third can be added at any time. The building has an area of 22,880 square feet. Part of the building will be used exclu-



ATLANTA HEADQUARTERS FOR "EXIDE" BATTERIES

sively for giving service to owners of both gas and electric cars. This department will have a force of trained battery men to give customers prompt attention. Directly back of the service station, on the second floor, is the main battery charging-room. The floor is of solid



CORNER OF BATTERY-CHARGING ROOM.

concrete, on top of which is laid acid-proof felt covered with acid-proof vitrified brick. The rest of the building is divided into receiving and shipping rooms, shop, stockroom and sales office.

The building and its equipment are of the most modern construction in every respect. Every facility possible has been included in order to properly serve battery users in the Atlanta territory. Modern conveniences for employees, including dining-room and shower baths, are also provided.

### Building Construction, Heating Apparatus.

R. Bailly, 6 Rue Malherin Rignin, Paris, France:

"I have been relieved from duties in the army, and I intend to reopen my office for importing foreign products. My customers are particularly interested in heating apparatus, construction of buildings and manufactures. Put me in communication with American firms who desire to introduce their products into the market of France."

An installation of 10,000 spindles and 450 looms additional is under consideration by the Maginnis Cotton Mills of New Orleans.

The Riverside & Dan River Cotton Mills, Danville, Va., will add 84 automatic looms, and this new machinery has been ordered.

# Construction Department

## IN ORDER TO FOLLOW UP

Properly the Construction Department items, please bear in mind the following statements:

### EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

### HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be written on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the post-office will generally be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur, as our reports are often published before new companies are known and before they have any established office for the receipt of mail.

### WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

### DAILY BULLETIN

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year.

All advertising contracts in the Manufacturers Record for three months or longer include a subscription to the Daily Bulletin for the contract period, as well as a subscription to the Manufacturers Record.

## BRIDGES, CULVERTS, VIADUCTS

Ala., Seale.—Russell County will construct bridge over Brush Creek on Tuskegee and Columbus Rd.; steel structure with concrete piers and floor or reinforced concrete; County Comms. receive bids until Nov. 15; W. S. Keller, State Highway Engr., Montgomery. (See Machinery Wanted—Bridge Construction.)

Fla., De Land.—Volusia County Comms., Maynard M. Bond, Chrmn., will construct bridges in connection with road construction, Halifax Special Road and Bridge Dist.; bids until Nov. 6. See Road and Street Work. (See Machinery Wanted—Bridges (Concrete).)

Ga., Rome.—City Com. will construct steel and concrete bridge across Silver Creek to replace structure destroyed by flood; cost \$6000; S. S. King, Supt. of Public Works, to supervise construction bridge 100 ft. long and 40 ft. wide; 1 beam; concrete floor; cost of filling and widening roadway \$1200.

Miss., Lexington.—Comms. Holmes County, Dist. No. 2, R. C. Ellmore, Secy. Highway Com., ask bids until Oct. 26 to construct about 1500 lin. ft. ballast-deck creosoted timber highway bridges; Snowden & Hauser, Engrs., Jackson and Columbus, Miss. (See Machinery Wanted—Bridge Construction.)

Mo., Carrollton.—Carroll County Comms. are reported to order election on Nov. 7 to vote on \$100,000 bonds to construct bridges.

Mo., Kansas City.—Kansas City Terminal Ry. Co., Wm. M. Corbett, Prest., let contract Arkansas Bridge Co., W. D. Pratt, Prest., Waldheim Bldg., Kansas City, and Fort Smith, Ark., to construct double-track double-deck bridge over Kansas River; 734-ft. double-track viaduct; approaches on each side; total length 7300 ft. long; estimated cost \$4,250,000; estimates understood to include \$1,600,000 for steel, \$1,500,000 for masonry and construction, 25,000 tons steel, 2000 cars rock, 1000 cars cement, 1000 cars sand, 3,000,000 ft. deck timber, 250,000 ft. falsework, 200,000 ft. piling, etc. (Heretofore noted in connection with extensive terminal improvements, etc.)

Okl., Tulsa.—Tulsa County Comms., Lewis Cline, County Clerk, asks bids until Nov. 6 to construct approaches to Arkansas River Bridge No. 150. (See Machinery Wanted—Bridge Approaches.)

Tex., Fort Worth.—City Comms. invite bids until Oct. 24 to construct reinforced concrete viaduct and approaches on Allen Ave.; total length 964 ft.; R. G. Littlejohn, Street Commr.; F. J. von Zuben, City Engr.; City Com., Gulf, Colorado & Santa Fe Ry. and Houston & Texas Central R. R. lately noted to have agreed to complete Allen Ave. viaduct, city to construct 300 ft. between 2 railroads and railroads portions crossing their right of way; city also reported in August to have appropriated \$25,000 toward its construction. (See Machinery Wanted—Viaduct Construction.)

Tex., Kountze.—Hardin County will construct concrete and steel culverts on 23 mi. of road; bids until Oct. 23; Myers & Noyes, Consult Engrs., Juanita Bldg., Dallas; W. W. Dies, County Judge. (See Machinery Wanted—Bridge Construction.)

Va., Lynchburg.—Norfolk & Western Ry., J. E. Crawford, Ch. Engr., Roanoke, let contract M. M. Elkan, Macon, Ga., for construction viaduct over James River and railway track; cost \$350,000; 1800 ft. long and 30 ft. wide, with 3 branch inclines; will eliminate 3 grade crossings and present free bridge over river; cost contributed by Norfolk & Western, Chesapeake & Ohio and Southern railways, City of Lynchburg and Amherst county. (Previously noted to be built, etc.)

## CANNING AND PACKING PLANTS

Ala., Mobile.—Superior Fish & Oyster Co., capital \$25,000, inceptd.; Anthony Smith, Prest. and Gen. Mgr.; A. G. Thompson, V.-P.; C. P. Smith, Secy.

Fla., Arcadia.—Peace River Truckers Assn. and Belgium Truckers Assn. will build fruit packing plant.

Fla., Jacksonville.—Thos. E. Wilson & Co. will erect meat-packing plant; secured site for buildings and stock yards.

Ga., Macon.—Acme Ice & Bottling Co., Alce Block, Prest., will establish meat-packing plant; plans \$500,000 investment to organize company, construct buildings, install machinery, etc.; may convert former brewery for packery.

Ga., Tifton.—M. E. Hendry, Cash. of National Bank of Tifton; W. W. Banks, V.-P.

of Bank of Tifton; Frank Scarboro and others plan organization \$150,000 company to build meat-packing plant; contemplates daily capacity 300 hogs, with arrangements for increasing to 800 hogs.

Ky., Louisville.—Louisville Provision Co., 922 E. Market St., J. W. Emmart, Secy.-Mgr., Louisville, to construct 82x45-ft. fireproof building; cost about \$40,000; plans by H. P. Henschien, Chicago; install abattoir and cold-storage machinery; present machinery to be removed and additional placed at cost of about \$5000. (Lately noted.)

Md., Baltimore.—Kaufman Beef Co., Union Stock Yards, will erect additional building; C. H. A. Wannenwetsch Co., Archt., Buffalo, N. Y.

Tenn., Kingsport.—J. Fred. Johnson, John R. Snow, J. B. Nall and others are interested in establishment of meat-packing plant.

Tex., San Antonio.—Alamo Dressed Beef Co. will build addition to meat-dressing plant; plans and specifications on file with company at San Antonio and with Southwestern Construction & Engineering Co., Austin, Tex., and will be furnished for \$25.

## CLAYWORKING PLANTS

W. Va., Charleston.—Porcelain Products, etc.—Consumers' Insulating Co., New Lexington, O., will build plant to manufacture chemical porcelain and electrical porcelain for insulation purposes; erect brick building to cover half acre.

## COAL MINES AND COKE OVENS

Ky., Ashland.—Kentucky Solway Coke Co. meets Nov. 1 to consider increase of capital from \$1,300,000 to \$2,500,000; offices also at Syracuse, N. Y.

Ky., Elys.—Paige Jellico Coal Co. organized; L. H. Stone, Cincinnati, O., Prest.-Treas.; E. H. Jewett, Detroit, Mich., V.-P.; J. K. Bradley, Secy.-Mgr.; will develop 1000 acres; daily capacity 500 tons coal. (Under Ky., Tinsley, lately noted inceptd., capital \$5000.)

Ky., Exodous.—Fidelity Coal Mining Co., capital \$30,000, inceptd.; leased 1000 acres coal land near Exodous; J. E. Butler, Prest.; R. L. Stearns, V.-P.; H. C. Trent, Secy.-Treas.; all of Stearns, Ky.

Ky., Pikeville.—Detroit-Kentucky Coal Co., capital \$50,000, inceptd. by Thos. J. Nerny, Elmer E. George and Fred J. Kaudt. (Lately noted as being organized.)

Ky., Tinsley.—Jaybee Jellico Coal Co., capital \$10,000, inceptd. by L. H. Stone, W. L. Moss and W. L. Hammond.

N. C., Cumnock.—Blon H. Butler, Southern Pines, N. C.; C. M. Reeves, Sanford, N. C., and F. A. Lane, Brockwayville, Pa., plan development Egypt coal mines.

Okl., Eldorado.—Walker Coal & Lumber Co., capital \$5000, inceptd. by S. E. Walker, U. G. Wighsinger and J. E. Bordermon.

Tenn., Chattanooga.—Atpontley Coal Corp., capital \$6000, chartered by R. J. Riddle, Jr., J. T. Walker, G. P. Lewis and others.

Va., Norfolk.—Virginia Navigation Coal Co., capital \$500,000, inceptd.; Isaac T. Mann, Prest., Bramwell, W. Va.; Geo. W. Woodruff, Secy., No. 1 Broadway, New York.

W. Va., Charleston.—Thompson Block Coal Co., capital \$10,000, inceptd. by S. P. Richmond, Geo. S. Couch, V. L. Black and others.

W. Va., Charleston.—Wood Coal Co., capital \$100,000, inceptd. by Geo. S. Couch, S. P. Richmond, V. L. Black and others.

W. Va., Grafton.—R. E. Talbott, Philippi, W. Va., advises Manufacturers Record: No plans to give out relative to capitalists planning to develop 29,000 acres coal land.

W. Va., Logan.—Jones Coal Land Co., capital \$75,000, inceptd. by H. C. Jones, Edward H. Butts, Naaman Jackson and others.

## CONCRETE AND CEMENT PLANTS

Ala., Demopolis.—Portland Cement.—Alabama Portland Cement & Lime Co. sold to W. G. Mitchell, of W. G. Mitchell Lumber Co., Shortleaf, Ala., who writes to Manufacturers Record: All property of company recently came into my hands; my intention to organize new company to begin operating plant in next few months; not now in position to give detailed information.

## COTTON COMPRESSES AND GINS

Ark., Fort Smith.—Fort Smith Compress Co. will remodel compress; writes to Manufacturers Record: Plans not completed; no definite plan will be formulated until early spring of 1917.

Miss., Tupelo.—Independent Compress and Warehouse Co. expects to rebuild next season; begin about April. (Plant previously burned.)

Tex., Seguin.—Seguin Round Bale Gin Co., C. I. Cook, Mgr., will rebuild plant lately noted burned; open bids Dec. 1 on 40x40-ft., 26x50-ft. and 20x40-ft. ordinary-construction buildings; will install gin and cotton-pressing (round and square bales) machinery; open machinery bids Jan. 15; daily capacity cotton 60 bales. (See Machinery Wanted—Oil Engine, etc.)

## COTTONSEED-OIL MILLS

Ala., Opp.—Kelly Fertilizer & Oil Mill Co., capital \$25,000, inceptd. by E. E. J. W. and L. Kelly.

Tex., Austin.—Walker Refining Co. is reported to rebuild cottonseed plant. (Lately incorrectly noted—under Fire Damage—as Walker Oil Refining Co.)

## DRAINAGE SYSTEMS

Fla., Jacksonville.—Duval County, Baldwin Drainage Dist., will construct 1,750,000 cu. yds. open ditch and concrete spillways; bids until Nov. 15; J. G. Boyd, Prest. Drainage Dist., Consolidated Bldg., Jacksonville; Isham Randolph & Co., Ch. Engrs., Heard National Bank Bldg., Jacksonville. (See Machinery Wanted—Drainage System.)

Ky., Calhoun.—Comms. McLean County Drainage Dist. No. 5, B. F. Landrum, Prest., and S. B. Robertson, Secy., asks bids until Oct. 23 to construct ditch and laterals; removal about 76,149 cu. yds. earth; bonds. (See Machinery Wanted—Drainage.)

Mo., Poplar Bluff.—Inter-River Drainage Dist. will proceed with plans (delayed by necessary legal procedure) for drainage construction; will let contracts; district embraces about 20,000 acres in Butler county; Morgan Engineering Co., Engr., 608 Goodwyn Institute Bldg., Memphis, Tenn.

Tex., Donna.—Hidalgo County Drainage Dist. No. 1, Geo. B. Meriwether, Chrmn. Comms., will construct Sections 1, 2 and 3 of protection levee; Section 1, total length 17,900 ft., clearing and grubbing 124 acres and 106,000 cu. yds. dirt work; Section 2, twin levee, total length 13,500 ft., clearing and grubbing 317 acres and 128,000 cu. yds. dirt work; Section 3, total length 61,000 ft., clearing and grubbing 214 acres and 223,000 cu. yds. dirt work; bids until Oct. 30; C. S. Clark, Dist. Engr. (See Machinery Wanted—Levee Construction.)

## ELECTRIC PLANTS

Ark., Gillett.—Stuttgart Public Service Co., Stuttgart, Ark., has 50-year municipal franchise to furnish electric lights and water; will build plant.

Fla., Howey.—Howey Land Co., J. H. Kelly, Gen. Mgr., 76 W. Monroe St., Chicago, Ill., has had specifications prepared by F. J. Postel & Co., 343 S. Dearborn St., Chicago, for 25 H. P. and 70 H. P. engine, 50 K. V. A. alternator and exciter, switchboard, oil-storage tanks, electrical and water distribution systems.

Fla., Lake Butler.—City, B. M. Wilson, Mayor, will vote Nov. 9 on lately-noted \$10,000 bonds to install electric-light plant.

Ky., Lagrange.—R. M. Smith and Joe Frankel of Lagrange, E. S. Tachau, J. B. Wilson (Supt. Louisville Water Co.) and John Davis, all of Louisville, are interested in organization of company with \$60,000 capital to construct electric-light and power plant, ice factory and water-works.

Ky., Paintsville.—John Buckingham is reported interested in plan to construct electric-light plant and water-works.

La., Welsh.—City voted \$15,000 bonds to purchase and install additional engine and to extend electric-light system. Address The Mayor. (Lately noted.)

Miss., Lula.—Lula Light & Water Co. (noted in Sept.) will install electric-light system comprising 30 H. P. oil engine, 25 K. V. A. 2200 V. 60-cycle generator, etc., and



wiring for multiple street lights and residence lighting; C. B. Swann, Box 275, Clarksdale, Miss., purchasing agent and engineer. (See Machinery Wanted—Electric-light Equipment.)

Miss. Yazoo City.—City contemplates installing larger generator at electric-light and water plant. J. S. Butler, Supt. Water and Light Plant.

Mo., Barnard.—Maryville (Mo.) Electric Light & Power Co. has municipal franchise to furnish electricity; will construct transmission system.

Mo., Marshfield.—Marshfield Electric Co. contemplates installing 50-H.P. oil engine.

Mo., Slater.—City contemplates purchasing and installing 72-in. by 18-ft. (150-hp. pressure) fire-tube boiler for electric-light plant; L. E. Shepherd, Supt.

N. C., Kernersville.—City let contract to Charlotte company at about \$9000 to construct electric-light system and build distributing station; also contracted with Southern Public Utilities Co. of Greensboro, N. C., to furnish power, connecting with system at Waukegan. Address The Mayor. (Noted in June to have voted \$10,000 bonds to construct electric-light system, water-works and sewers.)

Okla., Ardmore.—City Council approved plans for installation of ornamental lighting system; proposes to grant 25-year franchise. Address The Mayor.

Okla., Buffalo.—City voted on \$15,000 bonds to install electric-light plant. Address The Mayor.

Okla., Marlow.—City contemplates improvements to electric-light plant and water-works, to include erection of power-house and installation of engine, generator and motor, pumps, etc.; estimated cost, \$50,000. Address The Mayor.

S. C., McCormick.—M. G. Dorn and J. J. Dorn applied for franchise to establish electric-light plant; steam power; cost \$12,000 to \$15,000.

Tenn., Carthage.—Smith County Electric Co., T. B. Read, Secy.-Treas., lately noted organized, capital \$20,000, will construct power plant at total cost of \$30,000; erect brick building with metal roof, cost not decided; construction by the company; cost of transmission system \$5000; develop 200 H.P.; connect Carthage and South Carthage; Engr., R. S. Seese, Carthage. (See Machinery Wanted—Electrical Supplies, etc.)

Tex., Miami.—City invites bids until Oct. 25 for material for electric-light distribution system, 37½ K. W. A. C. generator, etc., in connection with construction of electric-light plant; Henry E. Elrod, Engr., 505 Interurban Bldg., Dallas; Roy Trowbridge, Mayor. (See Water-works.)

Va., Fork Union.—Fork Union Military Academy will install electric-light plant.

Va., Richmond.—City will expend \$35,000 to improve electric-light plant; invites bids on steam turbine; E. W. Trafford, Supt.

Va., Williamsburg.—Williamsburg Power Co., capital \$50,000, inceptd.; Julian T. Winfree, Pres.; Wm. M. Mulligan, Secy.-Treas.; both of Richmond.

### FERTILIZER FACTORIES

Ala., Opp.—Kelly Fertilizer & Oil Mill Co., capital \$25,000, inceptd. by E. E. W. W. and L. Kelly.

Mo., Perryville.—Emmett Meyer, Adolph Horn and John Bailey organized company to crush limestone for fertilizer; ordered crusher with capacity 2 to 3 tons crushed limestone per hour.

N. C., Henderson.—American Agricultural Chemical Co., New York, is increasing size of building and installing additional machinery; capacity to be increased to 500 tons daily; J. H. Brodie, local Mgr.

Tex., Houston.—Pacific Bone & Fertilizer Co., S. Pelsor, Pres., is reported as contemplating erection of fertilizer plant on ship channel.

### FLOUR, FEED AND MEAL MILLS

Fla., Plant City.—H. B. Wordehoff is interested in installation of grist mill, rice mill, corn-shelling machinery, etc. (See Machinery Wanted—Grist Mill, etc.)

Ga., Tifton.—Central Grocery Co., B. Y. Wallace, Mgr., will probably install plant to manufacture stock feed from corn and velvet beans; also contemplates flour mill.

La., New Orleans.—Bryan Bell is organizing company to build corn-feed mill.

Md., Ellicott City.—C. A. Gambrell Mfg. Co., 106 Commerce St., Baltimore, let contract Consolidated Engineering Co., 243 Cal-

vert Bldg., Baltimore, to build flour mill and grain elevator on Patapsco River to replace burned plant; new structure to be 6 stories high, of reinforced concrete construction; estimated cost of building \$100,000, and of machinery \$100,000; daily capacity 1500 to 2000 bbls. flour, storage capacity 100,000 bus. grain; plans by Nordyke & Marmion Co., Mill Archts., 1290 Kentucky Ave., Indianapolis, Ind. (Lately noted.)

N. C., Goldsboro.—Goldsboro Milling & Grain Storage Co., lately noted inceptd., capital \$50,000, organized; H. G. Maxwell, Pres.; D. W. Davis, V.-P.; J. E. Maxwell, Secy.; Chas. Miner, Mgr.; has building; will install machinery, cost within \$6000, to manufacture meal and stock feeds; machinery mainly purchased. (See Machinery Wanted—Electric Motors.)

S. C., Aiken.—Farmers' Storage & Fertilizer Co. will build flour mill.

Tex., Seguin.—Seguin Milling & Power Co., Eugene Nolte, Pres., and J. T. Holmes, Secy.-Mgr., advises will not yet rebuild corn mill lately noted burned; milling plant proper was not damaged; will rebuild warehouse and office, of fireproof construction; no machinery needed.

Va., Alexandria.—Virginia Feed & Milling Corp., capital \$50,000, chartered; Alvin O. Portner, Pres., 1454 V St. N. W., Washington, D. C.; Geo. H. Bouchert, Secy.-Treas., Alexandria; install equipment in Robt. Portner Brewing Co.'s plant to manufacture stock, dairy and poultry feeds; utilize present buildings. (Robt. Portner Co. lately noted to install equipment.)

### FOUNDRY AND MACHINE PLANTS

Ala., Anniston.—Iron Pipe.—Lynchburg (Va.) Foundry Co., C. C. Moore, Resident Mgr., will remodel plant; W. G. Hammerstrom, Ch. Engr., has designed improvements, to include new pits, remodeling old pits and increasing daily capacity to 100 tons high-pressure pipe.

Md., Baltimore.—Button Machinery.—Alcorno Button Co., capital \$250,000, inceptd. by Albert N. Palmer and Chas. S. Hayden of Baltimore and Wm. H. Harris of New York; manufacture button machinery; office at 123 Market Pl.

N. C., Charlotte.—Textile Machinery.—Southern Spindle & Flyer Co. is reported as contemplating erection of larger plant.

N. C., Winston-Salem.—Machine Shop.—R. J. Reynolds Tobacco Co. will build machine shop; 4 stories; brick.

Okla., Henryetta.—Machinery.—Sharpe-French Electric & Machine Co., capital \$5000, inceptd. by J. H. Sharpe, C. S. Sharpe and Edna H. French.

Tex., Dallas.—Boilers, Smokestacks, etc.—Dallas Boiler Works organized; Frank E. Austin, Pres.; H. L. Hinkley, V.-P. and Mgr.; W. J. Wyatt, Treas.; C. R. Moore, Secy.; has buildings, with machinery installed; will manufacture boilers, smokestacks, etc. (Lately noted inceptd., capital \$50,000.)

W. Va., Huntington.—Structural Steel and Ornamental Iron.—Huntington Iron Works, capital \$50,000, inceptd.; E. A. Reich, Pres.; Mgr.; C. M. Farrington, V.-P. and Supt.

W. Va., Sistersville.—Foundry.—Tilley-Reimann Iron Works will establish foundry; will erect 60x50-ft. building; has not purchased materials; J. G. Tilley, Pres.; W. J. McCoy, V.-P.; F. A. Reimann, Secy.-Mgr.; lately noted. (Also noted in Sept. under Machinery Wanted.)

### GAS AND OIL ENTERPRISES

La., Shreveport.—Hope Co., capital \$50,000, inceptd.; P. J. White, Pres., New Orleans, La.; O. A. Wright, V.-P. and Gen. Mgr., Shreveport; Potter Palmer, Jr., Treas., Chicago; Thos. White, Secy., Tulsa, Okla.

Okla., Ardmore.—Romania Oil Co., capital \$50,000, inceptd. by Ernest Hendon, L. S. Dolman and C. L. Anderson.

Okla., Chickasha.—Holt-Trammel Oil Co., capital \$90,000, inceptd. by C. Trammel and R. C. Holt of Chickasha and G. W. Ramsey of Anadarko, Okla.

Okla., Madill.—Belting Oil & Gas Co., capital \$25,000, inceptd. by S. P. Boyd, A. M. Robertson, Joe S. Dillingham and others.

Okla., Muskogee.—Berry Bailey Oil & Gas Co., capital \$25,000, inceptd. by C. G. Bailey, R. H. Perry, Will S. Evans and H. Oberstein.

Okla., Muskogee.—Wasaff Oil & Gas Co., capital \$24,000, inceptd. by K. Wasaff, Jos. G. Adame and Wm. O. Beall.

Okla., Oklahoma City.—Great Western Co., capital \$5000, inceptd. by Chas. H. Woods, H. L. McCracken and Geo. M. Green.

Okla., Oklahoma City.—Camel Oil Corp., capital \$25,000, chartered by A. A. Zalozdek, J. Gerald Marx and D. K. Pope.

Okla., Tulsa.—Belmont Petroleum Co., capital \$15,000, inceptd. by T. L. Brown, A. L. Poole, D. C. Tucker and T. B. Hodgden.

Okla., Tulsa.—Arrow Oil Development Co., capital \$1000, inceptd. by Chas. M. Hubbard, Wm. Starret and M. J. Wilson.

Okla., Tulsa.—Whitley Oil Co., capital \$10,000, inceptd. by Roy H. Poe, Ivan L. Jackson and Earl T. Miller.

Okla., Tulsa.—Seven-Eleven Oil & Gas Co., capital \$125,000, inceptd. by F. J. Sullivan, L. W. Mason and Harry Magoffin.

Okla., Tulsa.—Gasoline, etc.—Stebbins Oil & Gasoline Co., capital \$750,000, inceptd. by M. F. Powers, G. C. Stebbins and C. A. Steere.

Okla., Yale.—Petroleum Products Co., capital \$15,000, inceptd. by W. E. Canfield, J. G. Taylor, J. H. McClelland and others.

Okla., Yale.—Oil Refinery.—Star Refining Co., capital \$30,000, inceptd. by R. M. Garner, A. B. Post and H. P. Barnett of Yale and E. E. Ryan of Maramec, Okla.

Tenn., Nashville.—Aetna Oil & Gas Co., capital \$25,000, inceptd. by G. M. Whitson, Jacob Pierce, D. B. Snyder and others.

Tex., Atlanta.—Texona Oil Co., capital \$25,000, inceptd. by J. H. Snipes, A. D. Marrs and R. G. Cooper.

Tex., Victoria.—Gas Plant.—City voted to grant franchise to C. H. Kellam to construct plant to furnish artificial gas for lighting, heating, cooking and power. (Noted in Aug.)

Tex., Wichita Falls.—Panther Oil Co., capital \$25,000, inceptd. by Chas. W. Bean, Frank Kell, G. C. Wood and I. Mackowitz.

W. Va., Parkersburg.—Rex-Mar Oil & Gas Co., capital \$10,000, inceptd. by J. M. Connelly, R. G. Stiles, F. H. Rexroad and others.

### HYDRO-ELECTRIC PLANTS

N. C., Rougemont.—Little River Mfg. Co. will reconstruct dam; bids until Oct. 21; plans and specifications obtainable from J. B. Mason, Pres., Citizens' National Bank Bldg., Durham. (See Machinery Wanted—Dam Construction.)

### ICE AND COLD-STORAGE PLANTS

Fla., Crystal River.—Crystal Ice Co. has lately noted plant under construction; erecting galvanized 50x55-ft. buildings; J. B. Cutler, Pres.; Barclay Charpie, Secy.; H. E. Charpie, Mgr.-Treas.; has arranged for machinery to cost \$11,000.

Fla., Jacksonville.—Co-operative Ice Co., Room 1311 Heard Bldg., organized to establish ice-plant; G. Hall White, Pres.; S. C. Harrison, V.-P.; W. R. Schring, Secy.; has secured building and let contract for machinery with 30-ton ice-making capacity and 100,000 cu. ft. cold-storage.

Fla., St. Petersburg.—Citizens Ice & Cold Storage Co. will build ice factory to be operated as auxiliary to main plant; raw water.

Ky., Burlington.—B. F. Stone advises will not establish ice plant. (Recent report incorrect.)

Ky., Lagrange.—R. M. Smith and Joe Frankel of Lagrange, E. S. Tachau, J. B. Wilson (Supt. Louisville Water Co.) and John Davis, all of Louisville, are interested in organization of company with \$60,000 capital to construct ice factory, electric light and power, plant and water-works.

Mo., Montgomery City.—Montgomery Ice & Electric Co. contemplates building ice-storage house; 100 tons capacity.

Mo., Sarcoxie.—A. B. McAbee of Pittsburg, Pa., is reported as interested in organization of company to establish ice and powder factory.

N. C., Kinston.—P. A. Hooker plans construction of cold-storage plant in connection with abattoir. (See Miscellaneous Enterprises.)

S. C., Columbia.—Fred Kortright will build ice plant; daily capacity 30 tons; ordered machinery.

Va., Altavista.—E. Smith, Box 259, may establish ice factory. (See Machinery Wanted—Ice Plant.)

Va., Petersburg.—J. B. Worth Co., G. A. Smith, Pres., let contract to J. P. Wright, Petersburg, to erect lately-noted building for ice plant; brick and steel; cost \$10,000; plans by S. Dalley Craig, Petersburg; new structure replaces present frame building.

### IRON AND STEEL PLANTS

Md., Sparrows Point.—Steel Plant, etc.—Penn-Mary Steel Co. will erect addition to gas-engine plant; brick; 1 story; 90x200 ft.; fireproof; engines to be installed to be used in connection with blower system of steel works; estimates being prepared.

### LAND DEVELOPMENTS

Fla., Bradentown.—Riverland Co. inceptd.; O. L. Stuart, Pres.; W. H. Tucker, V.-P.; S. C. Stuart, Secy.-Treas.

Ga., Cave Spring.—Tainah Estates Corp., capital \$100,000, inceptd. by R. S. Perry and Mrs. Harriet A. Perry.

Ky., Edmonton.—Golden Rule Nursery & Orchard Co., capital \$6000, inceptd. by J. A. Salmon, O. W. Bushong and J. P. Vanzant.

Mo., Grandview.—King Realty Co. purchased 320 acres adjoining Grandview and will develop as suburb; plans to construct rock roads and erect 100 dwellings; divide tract into 150 sections of 1 acre or less and 5, 10 and 20 acres home sites.

Tex., Sherman.—City will expend \$10,000 for improvements to West Hill Cemetery, to include drainage, beautifying, walks and drives. Address The Mayor.

Va., Richmond.—Dominion Development Corp., capital \$25,000, chartered; Lewis Tyree, Pres.; F. Gellman, V.-P.; J. H. Oliver, Secy.-Treas.

Va., Roanoke.—Rugby Land Corp., 401 First National Bank Bldg., chartered; capital \$60,000; R. R. Fairfax, Pres.; S. R. Mason, V.-P.; O. B. Steele, Secy.-Treas.; will develop 106 acres Staunton Ave., 10th to 17th St.; construct blue limestone entrances and granolithic sidewalks; open bids in 10 days; Smith, Bradford & Co., Engrs.

### LUMBER MANUFACTURING

Ala., Thorsby.—R. J. Williams & Son have repaired mill lately noted to be rebuilt; have equipment of machinery; manufacture long-leaf and short-leaf rough and dimension timber; about 10,000 ft. daily.

Ark., Mena.—Ford Yoncouey of Ridgeley, Mo., purchased timber on 1600 acres and plans to install mill to manufacture hardwood into ax handles.

Fla., Green Cove Springs.—Dowling-Shands Lumber Co. will rebuild mill reported burned at \$150,000 loss; wires Manufacturers Record; Plans not far enough advanced to state details.

Ky., Jerehiah.—Wm. Whitaker purchased timber tract and will develop.

Ky., Kona.—Valley Creek Lumber Co., A. C. Craft, Mgr., Whitesburg, Ky., purchased timber tract on Millstone Creek; will install mills.

Ky., Whitesburg.—A. C. Cundiff will install mills to develop timber at Solomon Branch.

Miss., Kola.—Kola Lumber Co. will rebuild kilns, planing mills and dry shed reported burned.

N. C., Biltmore.—Swannanoa Lumber & Flume Co., capital \$25,000, inceptd. by I. E. L. Gaston, D. H. Gaston and W. C. Pryor.

N. C., Colon.—John L. Thomas will establish sawmill with daily capacity 8000 ft. lumber; has let contracts.

Okla., Eldorado.—Walker Coal & Lumber Co., capital \$5000, inceptd. by S. E. Walker, U. G. Wighsonger and J. E. Bordermon.

Okla., Oklahoma City.—Grant-Sprague Lumber Co., capital \$25,000, inceptd. by H. W. Sprague, Oklahoma City, C. A. Dodge and L. B. Grant of Drumright, Okla.

Okla., Wewoka.—Sturgeon-Elliott Lumber Co., capital \$30,000, inceptd. by A. D. Norvell, J. P. Stringfield, O. J. McCann and others.

### METAL-WORKING PLANTS

Ky., Louisville.—Metal.—Petre Metal Co., capital \$25,000, inceptd. by B. C. Neat, Chas. W. Inman, B. C. Neat, Jr., and H. C. Inman.

Md., Baltimore.—Cans.—Continental Can Co., 1002-1006 Keyser Bldg., will have plans prepared by Thos. B. Owings of Owings & Machen, 347 N. Charles St., Baltimore, for factory building; 3 stories; 100x350 ft.; structural steel, brick and concrete.

Md., St. Helena.—Tinning.—Arthur Richmond of Pittsburgh, Pa., will build tinning plant; brick and concrete construction; 1½-acre site.

W. Va., Huntington.—Hardware Specialties. Standard Stamping Co. of Marysville, Ohio, will build plant to manufacture lawn sprinklers, fruit-tree sprayers, fire extinguishers, electric stoves, etc.; site, 2½ acres.

## MINING

Ala., Gadsden—Graphite.—American Graphite Co., capital \$100,000, incptd. by T. S. Kyle, B. W. Pruitt and R. B. Kyle, Jr.

Mo., Galena—Land and Zinc.—Charter Oak Mining Co. will build mill.

Mo., Kansas City.—Haleo Mining & Development Co., capital \$10,000, incptd. by E. A. Halsey, G. I. Coon and Dora M. Knapp.

Mo., Nauvoo.—Henryetta Mining Co., Sallinsaw, Okla., organized to develop 200 acres; R. Kober, Pres.; S. A. McKee, V.-P.; Jos. I. Pitchford, Secy.-Treas.; A. H. Henderson, Mgr.

N. C., Burlington—Marble and Granite.—Sharp-Underwood-Garrison Co., Winston-Salem, N. C., and Burlington, organized; Wm. P. Sharp, Pres.-Mgr.; B. T. Underwood, V.-P.; W. H. Garrison, Secy.-Treas.; will install steam engine, drills, compressor, derrick, etc.; has purchased equipment, cost \$2500; daily capacity 1 to 2 carloads. (Lately noted incptd., capital \$10,000.)

N. C., Pollockville—Marl, Lime, etc.—Trent River Marl & Lime Co., capital \$125,000, incptd. by L. A. Miller, L. F. Shimmood and A. H. Judy.

Okla., Commerce.—Commerce Mining & Royalty Co. will build concentrating plant.

Okla., Commerce.—F. R. Cock of Springfield, Mo., leased mining land and plans development.

Tenn., Ducktown—Copper.—Tennessee Copper & Chemical Corp., chartered by S. Kramer, G. Trask and F. G. Fisher of 15 Broad St., New York.

Tex., Big Hill—Sulphur.—Gulf Sulphur Co. of Texas is at present doing development work only; A. W. Einstein, Pres., 315 N. 12th St., St. Louis, advises Manufacturers Record: Propose to install machinery early part of coming year.

Tex., Houston—Sulphur.—Toyah Valley Sulphur Co., capital \$130,000, incptd. by J. A. Daniel of Houston, G. A. Plummer of Beaumont and A. A. Snell of Toyah, Tex.

Va., Keysville—Copper.—Charlotte Copper Corp., capital \$100,000, chartered; Geo. S. Groves, Pres.; O. L. Crickenberger, Secy.

Va., Staunton—Limestone Quarry.—Staunton Lime Products Co., H. N. Leavell, Louisville, Ky., Pres., and N. C. Taylor, V.-P. and Mgr., acquired 8 acres limestone quarry land; plans erection of plant. See Miscellaneous Factories. (See Machinery Wanted—Rails; Crushing (Rock) Machinery.)

## MISCELLANEOUS CONSTRUCTION

Ark., Chicot County—Levee.—Board of State Engineers opened bids to construct Gaines Landing Levee, Mississippi River, right bank, contents 20,000 cu. yds.; Bond & McMurray of Memphis, Tenn., submitted lowest bid, and Board will recommend its acceptance to Tensas Basin Levee Board. (Lately noted inviting bids.)

La., Lake Providence—Levee.—Third Mississippi River Dist., Vicksburg, let contract Donovan & Dooley of Lake Providence to construct 35,000 cu. yds. of levee.

La., New Orleans—Earthwork.—Lafourche Basin Dist. will construct 498,000 cu. yds. earthwork; U. S. Engr. Office, Queen and Crescent Bldg., receives bids until Nov. 3. (See Machinery Wanted—Earthwork.)

La., New Orleans—Levee.—State Engrs. let contract Geo. W. Garig Construction Co. to construct St. Gabriel Church levee in Iberville Parish; contractors will build dyke 2 ft. above high water.

Miss., Friar Point—Levee.—Levee Comms. Yazoo-Mississippi Delta invite bids until Oct. 23 to construct all remaining enlargement work on levee, beginning with Section 3, 2½ mi. below Friar Point, and extending to lower end of district, excepting sections completed; 3,000,000 cu. yds.; T. G. Dabney, Ch. Engr. Comms., Clarksdale, Miss. (See Machinery Wanted—Levee Construction.)

Miss., Vicksburg—Levee.—State Engrs., New Orleans, La., let contract J. W. Noble, Fayette, Miss., to construct Davis Island Levee in lower Tensas, 20 mi. below Vicksburg; 25,000 cu. yds.

Tex., Dallas.—Dallas County Levee Improvement Dist. No. 1 voted \$48,000 bonds for levee construction. Address County Comms.

Tex., Houston—Concrete Wharf Wall and Platform.—City let contract Horton & Horton of Houston to build about 1300 lin. ft. concrete wharf wall and concrete relieving platform on untreated timber piling, cut-off near low-water level; to be known as Units 2 and 3, and to connect gap between Unit No. 1 (completed last year) and Unit No. 4 (now under construction); on Houston ship channel; cost within \$200,000; A. F. Mattson,

Designing Engr. (Noted in Sept. as inviting bids.)

Va., Norfolk—Dredging.—Government invites bids until Nov. 14 for dredging in Inland Waterway from Norfolk to Beaufort Inlet, N. C.; bids received at U. S. Engr. Office, Norfolk. (See Machinery Wanted—Dredging.)

## MISCELLANEOUS ENTERPRISES

Ala., Mobile—Steamboat Line.—Burke Packet Co., capital \$10,000, incptd.; Geo. Glover, Pres.-Treas.; Owen F. Burke, V.-P.; John T. Murray, Secy.

Ala., Mobile—Steamboat Line.—Alabama Transportation Co., capital \$9000, incptd. to operate steamboat line on Tombigbee and Alabama rivers, etc.; John Holcombe Quill, Pres. and Gen. Mgr.; Martin Van Huevel, V.-P.; Con R. Little, Secy.

Ky., Burlington—Laundry.—B. F. Stone advises will not establish laundry. (Recent report incorrect.)

La., New Orleans—Dairy.—Cloverlands Dairy Co. is having plans prepared by Favrot & Livaudais of New Orleans for addition to plant.

Miss., Meridian—Plumbing, etc.—Hobbs Plumbing & Electrical Co., capital \$10,000, incptd. by W. A. Hobbs, C. L. Robinson and others.

Miss., Tunica—Printing.—Weekly Tunica Times, F. J. Barlow, owner, will re-establish printing plant reported burned.

Mo., St. Louis—Contracting.—Hippe Contracting & Realty Co., capital \$6000, incptd. by Bernhard Hippe, Richard Hippe, Herman Reinicke and others.

N. C., Kinston—Abattoir.—P. A. Hooker is planning construction of abattoir and cold-storage plant.

Okla., Muskogee—Oil-well Cleaning.—Electric Oil Well Cleaning Co., capital \$25,000, incptd. by Vin Truman and Wm. Hough of Muskogee and D. A. Skillen of Boynton, Okla.

Tenn., Paris—Tollet Specialty.—Paris Tollet Co. increased capital from \$15,000 to \$75,000.

Tex., Calvert—Printing.—Calvert Printing Co., capital \$2040, incptd. by C. P. Jones, Will T. Corby and Geo. Whatley.

Tex., Brownsville—Laundry.—Thirty-sixth Infantry Laundry Co., capital \$3000, incptd. by John R. Lommel, Dan C. Donovan and Frank C. Pierce.

Tex., Taylor—Abattoir, etc.—City Comms. invite bids until Oct. 24 to erect fireproof abattoir, stock pens, feed houses, sheds, etc.; bids on all or any part of above; plans and specifications on file at City Manager's office; A. V. Hyde, City Clerk. (Lately noted.)

Va., Lynchburg—Transportation.—Shelbyville, Lynchburg, Fayetteville & Jackson Highway Express & Transportation Co., capital \$20,000, incptd. by Thos. Price, Ira A. Gross, John Elkins and others.

Va., Norfolk—Dairy.—City Dairy Co., capital \$10,000, incptd.; Alta Osment, Pres.; H. G. Waff, Secy.

Va., Richmond—Bottling.—Fonticello Springs Co., capital \$50,000, incptd.; Lewis Tyree, Pres.; J. H. Oliver, Secy.-Treas.

W. Va., Princeton—Laundry.—Majestic Steam Laundry will erect building; brick; 40x110 ft. with wing 23x40 ft.; McConnell Bros. have contract for brick work.

## MISCELLANEOUS FACTORIES

Ala., Anniston—Cream Products.—Anniston Cream Products Co., 21 E. 10th St., incptd. with \$2000 capital; T. A. Ingram, Pres.; J. W. Ingram, Secy., Treas. and Gen. Mgr.; will build plant.

Ala., Birmingham—Bottling.—Birmingham Glee-Cola Bottling Co., capital \$30,000, incptd.; Alvin M. Douglass, Pres.; W. T. Williams, V.-P. and Gen. Mgr.; J. L. Teaver, Secy.-Treas.

Ala., Birmingham—Root Beer Syrup.—Pocahontas Root Beer Co., 322½ S. 19th St., J. L. Teaver, Pres., will install machinery to manufacture root beer syrup; in Sept. noted incptd., capital \$100,000. (See Machinery Wanted—Syrup-making (Root Beer) Machinery.)

Ala., Birmingham—Roofing.—Barrett Co., Stanley Woodward, Mgr., writes to Manufacturers Record: Anticipate very few improvements; small expenditure; take care of all construction ourselves. (Lately noted to enlarge plant.)

Ala., La Pine—Toothpicks.—R. I. Fundorber may install machinery to manufacture toothpicks. (See Machinery Wanted—Toothpick Machinery.)

Ga., Augusta—Pulp and Paper.—Jas. T. Jackson and others plan to build pulp and paper mills.

Ga., Bainbridge—Peanut Crushing.—Empire Cotton Oil Co. will install peanut-crushing machinery.

Ga., Jackson—Medicine.—Jackson Medicine Co., capital \$50,000, incptd. by J. McBride Howell, John R. Northeut, Cobb Lampkin and others.

Ga., Tifton—Peanut Oil Mill.—Planters' Cotton Oil Co., J. H. White, Mgr., will install peanut machinery; estimated cost \$10,000.

Ky., Louisville—Chemicals.—Kenyon Chemical Co., capital \$2000, incptd. by H. V. Nordeman, C. B. Nordeman and Thos. B. Morton.

Ky., Louisville—Pads.—Falls City Pneumatic Pad Co. incptd. by J. G. La Point, L. M. La Point and E. L. Squire.

La., Bogalusa—Container Liner and Pulp. Great Southern Lumber Co., W. H. Sullivan, Gen. Mgr., has plans and specifications for construction 60-ton pulp mill and 100-ton container liner plant announced last June; several acres for site; buildings of cross-timber factory construction with brick walls; cost \$800,000; \$200,000 for buildings and \$600,000 for machinery; manufacture entirely from company's sawmill waste. (Previously noted to build this plant.)

La., New Iberia—Paper Pulp.—Sugar Cane By-products Co., Widener Bldg., Philadelphia, has 17-acre site and mill building; announces that it is now arranging details for installation of machinery to manufacture paper pulp.

La., Shreveport—Soap.—A. L. Schwartzberg, 627 Texas St., may establish soap factory. (See Machinery Wanted—Soap Machinery.)

La., Shreveport—Cigars.—Fred Herbert will establish cigar factory.

Md., Baltimore—Brewery.—M. Birming' an will build plant; 1 story; 24x74 ft.; brick and reinforced concrete; invites estimates from Chas. L. Stockhausen Co., Marine Nat'l Bank Bldg., and Cowan Building Co., 196 W. Madison St., both of Baltimore.

Md., Baltimore—Brewery.—Fred Bauerschmidt, Propr. American Brewery, 1194-1132 Hillen St., will erect brewery addition; brick; 5 stories; 30x33 ft.; B. Franklin Zipp, Archt., 601 Professional Bldg., Baltimore.

Md., Baltimore—Paper Bags.—Columbia Paper Bag Co., 521-579 E. Fort Ave., will erect addition; 2 stories; 40x51 ft.; following contractors will submit estimates: Jefferson J. Walsh & Son, 1533 Maryland Ave.; John J. O'Connor, 1023 W. Lombard St.; Consolidated Engineering Co., 243-255 Calvert Bldg.; David M. Andrew Co., Sisson and 26th Sts.

Mo., Kansas City—Oil Specialties.—Nourse Oil Co., Jack Nourse, Mgr., 1315 W. 8th St., will build \$100,000 factory for oil specialties; 2 stories; 220x128 ft.; stone building; 3-acre floor space; install \$20,000 machinery equipment; D. C. Lane, Archt. and Supt. of Constr.

Mo., Kansas City—Lighting Fixtures.—Kansas City Chandelier Co., capital \$2000, incptd. by Albert Jacobson, Julius Lebrecht and Irvin Jacobson.

Mo., St. Louis.—Brunk Mfg. Co. increased capital from \$4000 to \$30,000.

Mo., Sarcoxie—Powder.—A. B. McAbee of Pittsburgh, Pa., is reported as interested in organization of company to manufacture powder and ice.

Mo., St. Louis—Table-Beds, Refrigerators, etc.—Automatic Tablette & Mfg. Co., capital \$25,000, incptd. by L. J. Brucker and E. W. Meany of St. Louis and M. D. Miesner of Wittenberg, Mo.

N. C., Asheville—Tannery.—Hans Rees' Sons plan erection of 2 buildings to replace finishing department of plant lately burned; new structures to be of brick, each 2 stories high with concrete floors; one to be about 320 ft. long and other 290 ft.; machinery ordered. (Lately noted to rebuild.)

N. C., Durham—Cigarettes.—American Tobacco Co., 111 5th Ave., New York, is reported having plans prepared for cigarette factory.

N. C., Newbern—Bottling.—Newbern Coca-Cola Bottling Works, C. H. Hutaff, Wilmington, N. C., Pres., and C. A. Seifert, Mgr., has plans by H. E. Bonitz, Wilmington, for 37½x67-ft. 2-story \$4000 brick building; will install low-pressure bottling units and ice machine; machinery purchased, cost \$5000; bottle coca-cola. (See Machinery Wanted—Boiler, etc.)

Okla., Oklahoma City—Lubricants.—Oklahoma Refining Co., Kee K. McKee, Pres.-Mgr., 908 Herskowitz Bldg., will rebuild

structures reported burned; open bids Nov. 19 to erect 100x120-ft. fireproof building, cost \$30,000; open machinery bids Dec. 10; manufactures mixing, compounding, lubricating greases. (See Machinery Wanted—Mixers, Pumps, Tanks, etc.)

Okla., Oklahoma City—Soap.—Superior Soap Co., capital \$5000, incptd. by L. F. Houghton, Geo. W. Bowling and J. G. Street.

S. C., Beaufort—Beaufort Farm Products Co. incptd. by F. H. Christensen and J. L. Butler.

Tex., San Antonio—Photo Films.—Gotham Film Corp., 1457 Broadway, New York, secured Hot Wells property, 2 mi. from city center; will build film manufacturing plant; reported to construct group buildings to cost \$35,000; first building 170x300 ft.; open-air studio, 150x300 ft.; cost \$23,000; warehouse, 100x200 ft., cost \$6500; 50x75-ft. reinforced concrete laboratory, cost \$11,250; enclosed studio 50x75x40 ft., cost \$36,850; reinforced concrete film vault, cost \$2750; also projection-room or theater, cost \$2500; garage \$3500; stable, \$3300; shed \$11,250; grandstand, \$3000; office building, \$12,500; swimming pool \$3000. Other contemplated expenditures include: Improving roads and grounds with drainage, cost \$20,000; additional construction, etc., \$3,752; garage equipment \$5000; automobiles \$18,500; stables equipment \$5000; horses \$5000; projection-room equipment \$1200; laboratory equipment \$500; warehouse equipment \$6000; one open-air and two enclosed studios equipment \$85,000; office equipment \$3500; harness and carriage equipment \$11,000.

Va., Richmond—Spleer Mfg. Co. incptd.; E. S. Bolen, Pres.; Warren B. Hunting, Secy.

Tenn., Chattanooga—Gas and Electric Tips.—American Lava Co., 27 Williams St., will erect \$5000 addition to main factory building; C. E. Bearden, Archt., Chattanooga; Chambers & Sons, Contrs., Chattanooga.

Tex., Beaumont—Shipbuilding Plant.—L. E. Scott, care of Chamber of Commerce, proposes organization of \$100,000 company to build shipbuilding plant; contemplates marine ways and drydock; vessels up to 500 ft. long.

Va., Roanoke—Dairy and Ice-Cream.—Roanoke Dairy & Ice-Cream Co., capital \$25,000, incptd.; C. H. Epperly, Pres.; M. S. Huffman, Jr., Secy.-Treas.

Va., Staunton—Burnt Lime, etc.—Staunton Lime Products Co. organized; H. N. Leavell, Louisville, Ky., Pres.; N. C. Taylor, V.-P. and Mgr.; Randolph M. Valz, Secy.-Treas.; acquired equipment and kilns of A. M. Valz Lime & Stone Co., also about 8 acres limestone quarry land adjoining Virginia State limestone grinding plant; plans to enlarge acquired lime and stone plant and erect plant at quarries; erection includes 2 new limekilns, drawing sheds, warehouses, etc. of ordinary construction; address building proposals to Randolph M. Valz; company produces burnt lime, fluxing stone, ballast, etc. (See Machinery Wanted—Rails; Crushing (Rock) Machinery, etc.)

W. Va., Wheeling—Bakery.—General Baking Co., 45 E. 12th St., New York, W. H. Collins, Pres., will erect 100x125-ft. 3-story 500,000 building of mill construction; contract lately noted let to J. W. Beltz & Son, Wheeling; also let contract for \$40,000 bakery at Steubenville, O.; cost of machinery, each plant, \$20,000; F. F. Faris, Archt. Wheeling; Louis Storck, Branch Mgr., Wheeling.

## MOTOR CARS, GARAGES, TIRES, ETC.

Ala., Anniston—Automobiles.—Edmondson & Boozer Auto & Supply Co., capital \$10,000, incptd.; John F. Boozer, Pres.; J. H. Edmondson, Secy.-Treas.

D. C., Washington—Garage.—Jas. A. Donahue let contract M. A. Weller, 700-701 Equitable Bldg., Washington, to erect garage at 215 Pennsylvania Ave. S. E.; 2 stories; fireproof; cost \$16,000.

La., Thibodaux—Automobiles.—Pelican Auto Co., capital \$10,000, incptd.; Richard J. Barker, Pres.; Frank L. Barker, V.-P.; Sidney A. Bourg, Secy.

Mo., St. Louis—Automobiles.—Garfield Auto Supply Co., capital \$10,000, incptd. by F. A. Wiederman, Harrison Guest and Benj. H. Bower.

Mo., St. Louis—Auto Repairs.—Reis Auto Repair Co., J. P. Reis, Pres., 6156 Bartner Ave., will erect lately-noted building, cost \$5000, and install equipment for auto repairs.

Mo., St. Louis—Automobiles.—Carondelet Motor Car Co., capital \$5000, incptd. by Frank E. Stevens, Richard P. Edington, J. W. Pruett and D. S. Pruett.

N. C., Concord—Automobiles.—Concord Mo-



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tor Co., capital \$25,000, inceptd. by E. K. Mc-Connell and others.  
N. C., Gastonia—Garage.—J. B. Beal let contract H. F. Oakley to build addition to garage; 50x150 ft.; 10,250 sq. ft. floor space; brick.  
S. C., Charleston—Garage.—Middleburg Garage will erect building; increase floor space 22,000 sq. ft.; erect additional floor, making structure 2 stories high; Central Engineering Co., Contr., Charleston.  
S. C., Gaffney—Garage, etc.—Gaffney Motor Co., E. M. DuPre, Columbia, S. C., Prest., will occupy building (lately noted to be erected by C. H. Robbins) as a salesroom and Ford service station; 2-story 40x100-ft. brick building, with automatic sprinkling; cost \$10,000; Vick Spurgeon, Contr., Gaffney.  
Tenn., Memphis—Garage.—C. D. Walles will erect garage at 883 Poplar St.; 1 story; cost \$3000; T. F. Moore is probably Contr.  
Tenn., Memphis—Automobiles.—Allen Motor Car Co., capital \$5000, inceptd. by L. S. Caro, Jesse Edington, H. J. Holmes and others.  
Tex., Dallas—Automobiles.—Flippin Auto Co., capital \$5000, inceptd. by Newton G. Flippin, J. W. Youngblood and R. T. Harris.  
Va., Berkeley, Sta. Norfolk—Garage.—Williams Garage, capital \$25,000, inceptd.; P. H. Williams, Pres., Portsmouth, Va.; L. S. Basnight, Secy.-Treas., Portlock, Va.  
Va., Richmond—Automobiles.—Huffman Auto Store, capital \$15,000, inceptd.; Philip Keppler, Pres.; Julius Wildt, Secy.-Treas.  
W. Va., Huntington—Automobiles.—Service-Sales Co., capital \$5000, inceptd. by J. A. Ripley, Cecil Ebert, M. J. Ferguson and others.

### ROAD AND STREET WORK

Ala., Centerville.—Bliss County will grade, drain and surface with gravel part of Centerville and Randolph Rds.; expenditure \$500; County Commrs. receive bids until Nov. 18; W. S. Keller, State Highway Engr., Montgomery, Ala. (See Machinery Wanted—Road Construction.)  
Ala., Gadsden.—Etowah County Road Com. let contract C. G. Kershaw to build Colvin Gap Rd. across Colvin Mountain from Hokes Bluff to Calhoun County line; S. J. Cummings, County Engr.  
Ark., Camden.—Ouachita County Commrs. have revised estimates by State Highway Com., Little Rock, for sand and clay road from Camden to Nevada county line; estimated cost \$25,000.  
Ark., El Dorado.—City let contract McEachin Construction Co., McAlester, Okla., to pave 40 blocks in Improvement Dist. No. 4.  
Ark., Jonesboro.—Craighead County Commissioners have plans by State Highway Com., Little Rock, for 14 mi. of road from Jonesboro to Otwell, 12 mi. of which will be of gravel and remainder of asphalt macadam; estimated cost \$60,000.  
Ark., Walnut Ridge.—Lawrence County Commrs. have plans by State Highway Com., Little Rock, for road from Walnut Ridge 5½ mi. north; macadam; estimated cost \$25,000.  
D. C., Washington.—District Commrs. will grade streets aggregating 107,000 sq. yds.; bids until Oct. 24. (See Machinery Wanted—Paving.)  
D. C., Washington.—Dist. Commrs., C. W. Kutz, Engr. Commr., let contract to Warren F. Brenizer Co., Washington, to grade and improve streets; cost \$73,000; C. B. Hunt, Engr. of Highways. (Bids lately noted.)  
Fla., De Land.—Volusia County Commrs., Maynard M. Bond, Chrmn., ask bids until Nov. 6 for highway construction, Halifax Special Road and Bridge Dist.; Section 2-A and Section 2-B; 47,520 lin. ft. roadway; 9 mi.; J. B. McCrary Co., Engr., 1408 Third National Bank Bldg., Atlanta, Ga. (See Machinery Wanted—Road Construction.)  
Fla., Fellsmere.—City will construct 6 mi. paving, sewers and storm drainage system; estimated cost \$100,000; Isham Randolph & Co., Engrs., 208 S. La Salle St., Chicago.  
Fla., Lake Helen.—City let contract N. N. Jacobs to construct 1 mi. of 4½-ft. cement sidewalks.  
Fla., St. Cloud.—City, Fred B. Kenney, Clerk, will construct street paving; open bids Dec. 1; Wilbur A. Ginn, Engr., St. Cloud; noted in Sept. (See Water-works; See Machinery Wanted—Water-works, Sewers and Paving.)  
Fla., West Palm Beach.—Palm Beach County is reported to have voted \$10,000 bonds to construct roads. Address County Commrs.  
Ky., Barbourville.—Knox County Fiscal Court, R. P. Black, Clerk, asks bids until

Oct. 28 to grade road from Bailey's Switch to Corbin, 15 mi.; also to construct 2 mi. macadam road at Flat Lick, Ky. (See Machinery Wanted—Road Construction.)  
Ky., Hopkinsville.—Montgomery, Perkins & Co. have contract at \$28,378.60 to construct water-bound macadam pavements, requiring 7000 cu. yds. macadam and 30,000 cu. yds. grading.  
Ky., Paducah.—McCracken County Commissioners ordered election on Nov. 7 to vote on \$200,000 bonds to construct roads.  
Ky., Whitesburg.—City will improve streets; let contract Nov. 11. Address The Mayor. (See Machinery Wanted—Paving.)  
La., Amite.—Tangipahoa Parish, First Ward, is reported to have voted \$100,000 bonds to construct roads. Address Police Jury.  
La., Bogalusa.—City bond issue lately noted voted includes \$30,500 for streets and bridges. Address The Mayor. (See Water-works.)  
La., Shreveport.—Caddo Parish Police Jury let contract J. B. Willis at \$752 to grade continuation of Tim Mooring Rd. from Vivian to Lewis; road will be graveled next year.  
Md., Baltimore.—City will grade and pave various alleys with cement-concrete; bids until Oct. 25; R. M. Cooksey, Highways Engr. (See Machinery Wanted—Paving.)  
Md., Emmitsburg.—City let contract to L. R. Waesche, Thurmont, Md., for street improvements; \$2500 available; J. Stewart Anan, Burgess. (Bonds lately noted.)  
Miss., Charleston.—Tallahatchie County, Road Dist. No. 2, will vote Nov. 6 on \$25,000 bonds to construct roads; D. S. Henderson, Clerk Suprs.  
Miss., Ellisville.—Jones County Suprs. ordered election on Nov. 3 to vote on \$200,000 bonds to construct roads; bond issue already sold. (Noted in September.)  
Miss., Grenada.—Grenada County Suprs. ask bids until Nov. 6 to construct about 85 mi. sand-clay roads; M. E. Powell, Chancery Clerk and ex-officio Clerk Board Suprs.; road construction previously noted. (See Machinery Wanted—Road Construction.)  
Miss., Liberty.—Amite County Suprs., Wallace Jackson, Pres., will issue bonds for road construction as follows: For Dist. No. 1, \$20,000; Dist. 2, \$10,000; Dist. 3, \$20,000; Dist. 4, \$50,000.  
Mo., Kansas City.—City let contract J. O'Connor & Son, 8000 E. 11th St., at \$30,285 to pave portion of 12th St., and E. F. Wilson at \$24,272 to pave Cleveland St.  
N. C., Durham.—City let contract to R. G. Lassiter, Oxford, N. C., to construct 8000 sq. yds. sheet asphalt; H. W. Kuefner, City Engr.; Gilbert C. White, Durham, Consult. Engr. (Lately noted.)  
N. C., Hamlet.—City will soon ask bids for street improvements; Gilbert C. White, Durham, N. C., Consult. Engr. (Noted in Sept. as issuing \$50,000 bonds.)  
N. C., Rockingham.—Richmond County Commrs. will sell \$50,000 bonds to improve roads.  
N. C., Morganton.—Burke County, Quaker Meadow Township, voted \$20,000 bonds to construct roads. Address County Commrs. (Noted in September.)  
N. C., Oxford.—City issued \$180,000 bonds to improve streets. Address The Mayor.  
Okla., Lawton.—Comanche County Commrs. contemplate ordering vote on \$250,000 bonds to improve roads.  
Okla., Sand Springs.—City paving contract, lately noted let to Standard Paving Co., San Antonio, Tex., amounted to \$104,283.58; comprise following: 48,600 sq. yds. 2-in. asphaltic concrete pavement on 4½-in. concrete 1-3-5 base, at \$1.61; 18,000 cu. yds. excavation, at .28; 17,500 lin. ft. 6x18 straight curb, .48; 1800 ft. circular curb, .52; 1600 ft. 6x12 headers, .30; 68 inlet basins, \$15; 2500 lin. ft. 10-in. sewer pipe, .50; 256 water taps, \$6; 14,300 lbs. lead, .13.  
Tenn., Canton.—Lincoln County defeated \$450,000 bonds to build roads. (Lately reported.)  
Tex., Austin.—City will issue \$64,000 bonds for street paving. Address The Mayor.  
Tex., Angleton.—Brazoria County Road Dist. No. 13 voted \$150,000 bonds for road construction. Address County Commrs. (Noted in Aug.)  
Tex., Brackettville.—Kinney County Commissioners will construct roads, including road to Edwards County line.  
Tex., Dallas.—City will grade, macadamize, curb and gutter section of Sanger Ave. Hal Moseley, City Engr.  
Tex., Fairfield.—Freestone County, Road

Dist. No. 4, voted \$7000 bonds to construct roads; G. W. Tryer, County Judge.  
Tex., Fairfield.—Freestone County, Road Dist. No. 3, voted \$20,000 bonds to construct roads; G. W. Tryer, County Judge.  
Tex., Gilmer.—Upshur County Commrs. let contract O. C. McElreath at \$23,250 to grade 12 mi. of road between Gilmer and Camp County line; W. H. McClelland, County Judge. (Lately noted inviting bids.)  
Tex., Kountze.—Hardin County will clear, grub and grade 11 mi. of road from Honey Island to Votaw; Commrs. Court and Highway Committee receive bids until Oct. 23 on sections 2 mi. long; Myers & Noyes, Consult. Engrs., Juanita Bldg., Dallas; W. W. Dies, County Judge. (See Machinery Wanted—Road Construction.)  
Tex., San Antonio.—Medina Lake Toll Road Co., capital \$25,750, inceptd. by Franz C. Groos, J. H. Frost, J. W. Warren, M. J. Arnold and others; construct 6½ mi. toll road to Medina Lake.  
Tex., Waxahachie.—City voted \$120,000 bonds to pave streets, build sewage-disposal plant and erect school building. Address The Mayor. (Noted in August as to vote.)  
Tex., Weatherford.—Parker County Commissioners have report from Geo. D. Marshall, United States Supt. of Road Construction, Austin, on improvement of 180 mi. of roads in Parker County estimated to cost \$600,000.  
Va., Richmond.—City will gravel and roll 43d St. and Reedy Ave.; also grade and pave certain alleys; Chas. E. Bolling, City Engr., receives bids until Oct. 20. (See Machinery Wanted—Paving, etc.)  
W. Va., Grafton.—Taylor County, Knottsville Dist., will vote on \$110,000 bonds to improve roads. Address County Commrs.  
W. Va., Huntington.—City will grade, curb and pave section of 11th St. and various alleys; also construct various sewers; City Commrs. receive bids until Oct. 23; O. H. Wells, Commr. of Streets, etc.; A. B. Maupin, City Engr. (See Machinery Wanted—Paving, etc.)  
W. Va., Lewisburg.—Greenbrier County, Meadow Bluff Township, votes Nov. 7 on \$121,000 bonds to improve 12 mi. James River and Kanawha pike within district. Address County Commrs.  
W. Va., Lewisburg.—Greenbrier County, Fort Springs Dist., voted \$103,000 bonds to improve roads; J. S. Crawford, Clerk County Commrs. (Lately noted.)

### SEWER CONSTRUCTION

Fla., Fellsmere.—City will construct sewers, storm drainage system and 6 mi. paving; estimated cost \$100,000; Isham Randolph & Co., Engrs., 208 S. La Salle St., Chicago.  
Fla., St. Cloud.—City, Fred B. Kenney, Clerk, will construct lately-noted sanitary sewers and sewage-disposal system; about 11,000 yds.; open bids Dec. 1; Wilbur A. Ginn, Engr., St. Cloud. (See Water-works; See Machinery Wanted—Water-works, Sewers and Paving.)  
Ga., Lithonia.—City voted \$35,000 bonds to construct sewer system and water-works. J. M. Tribble, Mayor. (Noted in Sept.)  
Ky., Lexington.—City let contract Carey-Reed Co. of Lexington at \$43,085 to construct Northside storm-water sewer with segment blocks; Jas. C. Rogers, Mayor. (Lately noted inviting bids.)  
La., Bogalusa.—City bond issue lately noted voted includes \$125,000 for sewer and water. W. H. Sullivan, Mayor, advises Manufacturers Record that city is purchasing sewer system already installed, which will need future extensions, but that no plans have been made for any work at present.  
Md., Towson.—Baltimore County Commrs. have report with plans and specifications for sewer system from Norton, Bird & Whitman, Engrs., 1329 Munsey Bldg., Baltimore; estimated cost \$66,902.30.  
Mo., St. Louis.—City will construct sewers in Glaise Creek Sewer Dist. No. 12 and in Arise Joint Sewer Dist.; Board of Public Improvements receives bids until Oct. 31. (See Machinery Wanted—Sewer Construction.)  
Tex., Cameron.—City has plans by Hall Construction Co. of Austin for sewage-treatment plant, to consist of settling tank, dosing tank, contact beds, chlorine apparatus for 200,000 gals. daily flow.  
Tex., Frost.—City contemplates construction of sewer system and disposal plant; cost \$10,500; J. S. Presnall, City Secy.  
Tex., Memphis.—City will alter and enlarge sewage-disposal plant; bids opened Oct. 17; Henry E. Elrod, Consult. Engr.,

505 Interurban Bldg., Dallas; W. M. Fore, Mayor; noted in Aug. to have retained Mr. Elrod to prepare plans and supervise construction of sewage-disposal plant. (See Machinery Wanted—Sewage-disposal Plant.)  
Tex., Port Arthur.—City Com. ordered election Nov. 7 on \$100,000 bonds to extend sewer system. (Lately noted.)  
Tex., Waxahachie.—City voted \$120,000 bonds to build sewage-disposal plant, pave streets and erect school building. Address The Mayor. (Noted in August as to vote.)  
W. Va., Huntington.—City will construct various sewers; bids until Oct. 23; A. B. Maupin, City Engr. (See Road and Street Work.)

### TELEPHONE SYSTEMS

Ala., Selma.—Southern Bell Telephone & Telegraph Co., Geo. J. Gundt, Ch. Engr., Atlanta, Ga., will erect 2-story brick and joist building for central office uses; cost \$18,000; construction bids have been opened.

### TEXTILE MILLS

Ala., Mobile.—Hosery.—J. F. Carter, Jr., 1905 Dauphin St., will establish hosiery knitting mill; not decided on location.  
La., New Orleans.—Magnolia Cotton Mills considering installation 10,000 spindles and 450 looms additional.  
N. C., Winston-Salem.—Kitt Goods.—P. H. Hanes Knitting Co. will add 8000 spindles to No. 4 mill.  
S. C., Carhartt.—Denims, etc.—Hamilton Carhartt Cotton Mills, W. G. Anderson, Resident Mgr., Rock Hill, S. C., has plans and specifications for additional mill, No. 2; 3-story brick and heavy frame-construction mill building; steel sash openings; Barrett specification roof; tower, dyehouse and boiler-house roofs of green tile; transformer-house; whole plant to consist of 3 units, costing \$300,000; contract for building first unit let to Sellers & Paggett, Columbia, S. C.; install 3600 spindles, 116 looms, preparatory machinery, dyeing equipment, etc., for first unit; ultimate equipment 11,000 spindles, 350 looms, etc.; first unit contract includes dyehouse, boiler-house, picker-house, warehouses and main tower; electricity from transmission system of Southern Power Co.; steam plant with two 125 H. P. boilers to furnish steam for dyeing, finishing and heating; mill village plans provide for 1000 population; 3 to 6-room cottages with electric wiring, water supply, sewer connections, bathrooms, lawns, vegetable gardens, etc.; N. Gaillard Walker, Archt.-Engr., Rock Hill, in charge of all construction. (Lately noted under Rock Hill as to build additional mill, etc.)  
Tenn., Johnson City.—Hosery.—Johnson City Mills, \$50,000 capital stock, inceptd.; Ben A. Morton, Pres.; J. P. Roddy, V.-P.; T. F. Dooley, Secy.-Treas., manufacture misses hosiery; will let contract to construct building.  
Va., Danville.—Denim.—Riverside & Dan River Cotton Mills will add 84 new looms; has let contract.

### WATER-WORKS

Ark., Gillett.—Stuttgart Public Service Co., Stuttgart, Ark., has 50-year municipal franchise to furnish water and electric lights; will build plant.  
Ark., Magnolia.—Consumers' Pipe Line Co. will expend \$10,000 for pipe line; Arkansas Power & Light Co. to supply water tanks, pumps and wells. (W. Gantt lately noted to organize company with \$10,000 capital to build water-works.)  
Fla., Brooksville.—City voted \$30,000 bonds to construct water-works; W. M. Russell, City Clerk. (Lately noted to vote.)  
Fla., Howey.—Howey Land Co., J. H. Kelly, Gen. Mgr., 76 W. Monroe St., Chicago, Ill., has plans by F. J. Postel & Co., 343 S. Dearborn St., Chicago, for water-distribution system, etc. (See Electric Plants.)  
Fla., St. Cloud.—City, Fred B. Kenney, Clerk, will construct water-works noted in Sept.; also sewerage, sewer-disposal plant and street paving; open bids Dec. 1; Wilbur A. Ginn, Engr., St. Cloud. (See Machinery Wanted—Water-works, Sewers and Paving.)  
Ga., Lithonia.—City voted \$35,000 bonds to construct water-works and sewer system. J. M. Tribble, Mayor. (Noted in Sept.)  
Ky., Lagrange.—R. M. Smith and Joe Frankel of Lagrange, E. S. Tachau, J. B. Wilson (Supt. Louisville Water Co.) and John Davis, all of Louisville, are interested in organization of company with \$60,000 capital to construct water-works, electric-light and power plant and ice factory.

Ky., Paintsville.—John Buckingham is reported interested in plan to construct water-works and electric-light plant.

La., Bogalusa.—City bonds lately noted voted include: For water and sewers, \$125,000; city hall and jail, \$30,000; fire department, \$25,500; streets and bridges, \$30,500. Address The Mayor.

La., Lafayette.—City appropriated \$20,000 to install oil engine and generating apparatus at water-works. Address The Mayor.

Md., Frostburg.—City will increase water supply. Address The Mayor.

Md., Takoma Park.—Harry Stevens, Engr., Union Trust Bldg., Washington, will soon invite bids to construct storage reservoir of 4,000,000 gals. capacity.

Miss., Sumrall.—City has plans for water-works; \$20,000 bonds voted; Xavier A. Kramer, Engr., Magnolia, Miss.; E. C. Kingsberry, Myrator. (Noted in June as contemplating bond issue.)

Miss., Yazoo City.—City contemplates installing larger generator at water and electric-light plant; J. S. Butler, Supt. Water and Light Plant.

Mo., Carrollton.—Water, Light & Transit Co. is planning construction 400,000-gal. filter system; H. W. Graham, Supt.

Okla., Arnett.—City contemplates voting on \$65,000 bonds to construct water-works. Address The Mayor.

Okla., Arnett.—City will vote on \$65,000 bonds to construct water-works. Address The Mayor.

Okla., Caney.—City is reported to have voted \$18,000 bonds for water-works. Address The Mayor.

Okla., Marlow.—City contemplates improvements to water-works and electric-light plant to cost \$50,000. Address The Mayor. (See Electric Plants.)

Okla., Pawhuska.—City is reported to have voted on \$18,000 bonds for water-works; J. M. Buckley, City Engr.

Okla., Buffalo.—City voted on \$15,000 bonds for water-works. Address The Mayor.

Okla., Wilburton.—City is having preliminary surveys made for water-works; McIntosh-Walton Engineering Co., Engr., Oklahoma City.

S. C., Bamberg.—Comms. of Public Works let contract Blankenship & McLeellan of Charlotte, N. C., to construct pipe lines for water-works; G. D. Ryan, City Engr. (Lately noted to expend \$13,000 to \$15,000 on water-works construction, to include installation of centrifugal pumping machinery.)

Tex., Leonard.—City voted \$8000 bonds to construct water-works. Address The Mayor. (Noted in September to vote.)

Tex., Miami.—City invites bids until Oct. 25 for water-works and electric-light plant as follows: Complete water-works distribution system; motor-driven well-pumping machinery; material for electric-light distribution system; reinforced concrete reservoir; two 50 H. P. crude oil engines, direct connection; 37½ K. W. A. C. generator with direct-connected exciter alternate, same as above with generator, belted with direct exciter; also with both generator and exciter belted; Henry E. Elrod, Engr., 505 Interurban Bldg., Dallas; Roy Trowbridge, Mayor; noted in Aug. to have issued \$25,000 bonds. (See Machinery Wanted—Water-works and Electric-light Plant.)

Tex., Pecos.—H. La Salle and associates will pipe soft water into Pecos; will acquire present system for \$13,000.

Tex., Port Arthur.—City Com. ordered election Nov. 7 on \$80,000 bonds to extend water-works. Address The Mayor. (Lately noted.)

Tex., Tioga.—City contemplates improving water-works. Address The Mayor.

### WOODWORKING PLANTS

Ala., Birmingham.—Staves.—I. G. McLean Lumber Co., Nashville, Tenn., is considering establishment of stave factory.

Ark., Jonesboro.—Hoops.—Speice Bros. (T. M. & J. F. Speice) will build lately-noted factory; 40x80 ft.; \$2500 mill-construction building; erection by owner; purchased machinery, cost \$5000; daily capacity 60,000 hoops.

Ark., Mena.—Ax Handles.—Ford Youncey of Ridgeley, Mo., will install mill to manufacture ax handles. (See Lumber Manufacturing.)

Ky., Kings Creek.—Staves.—Kelley Stamper, Roxana, Ky., purchased timber boundary at Kings Creek; will install stave mill.

Md., Baltimore.—Boxes.—Jones & McComas Box Co. purchased site at 1516-1524 Lancaster St. on which to build plant; will install

machinery for manufacturing wooden boxes; Hugh H. Jones, Jr., Prest.; Walter P. McComas, Secy.-Treas.

Md., Frederick.—Furniture.—Ebert Furniture Co., Philadelphia, Pa., plans to establish furniture factory; reported cost of site, building and equipment, \$50,000.

Tex., Waco.—Cooperage.—Waco Cooperage Co. Inceptd. by J. Wernett, J. C. Owyn and Abe Bross.

S. C., Pamplico.—Furniture Veneer.—Clement Veneer & Lumber Co. chartered, capital \$50,000; M. L. Marsh, Concord, N. C., Prest.; B. D. Dargan, V.-P.; W. L. Clement, Secy.-Mgr.; let contract Tinsley & Son, Pamplico, to construct 34x180-ft. 1-story \$10,000 ordinary mill-construction building; purchased machinery; daily capacity 30,000 ft. poplar veneer for furniture trade. (Lately reported Inceptd. under N. C., Pamplico.)

Tenn., Kingston Springs.—Staves.—Volunteer Stave Co., capital \$2500, Inceptd. by J. E. Nesbitt, Wm. Nesbitt, Isaac T. Robertson and others.

### FIRE DAMAGE

Ala., Birmingham.—Collegeville Negro School; loss \$3000. Address School Trustees.

Ala., Fosters.—W. S. Patton & Co.'s gin, grist mill and sawmill; loss \$5000.

Ark., Arkansas City.—Lamb & Demarke Light & Water Co.'s engine-room of plant; loss \$12,000.

Ark., Fort Smith.—Fort Smith Refrigerator Co.'s plant; loss \$17,000.

Ark., McGehee.—Oscar Townsend's dwelling, owned by McGehee estate; loss \$4000.

Ark., Washington.—Orrine Battle's cotton gin; loss \$8000.

Ga., Guyton.—J. V. Norton's store, loss \$4000; 3 stores owned by G. A. Baynard of Macon; O. G. Jackson's Pressing Club.

Ky., Frankfort.—Mrs. John C. Noel's building, occupied by O. N. Smith Feed & Produce Co.; loss \$5000.

Ky., Georgetown.—Princess Theater; loss \$3500; Arnhalter, Steele & Haselden, owners.

Ky., Sulphur.—Methodist Church (address The Pastor); Baptist Church (address The Pastor); residences of Mrs. Hattie Smith, Mrs. Ione Glidden, Mrs. John Abbott and B. F. Smith; total loss \$15,000.

Ky., Winchester.—Clark County Construction Co.'s barn; loss \$6500.

La., Arcadia.—Petty & Hightower's saw and planing mill; loss \$2500 to \$3000.

La., McDade.—A. F. McDade's seedhouse; loss \$7500.

Md., Bluemount.—Residence owned by

Henry F. Magness, 1516 E. Baltimore St., Baltimore; loss \$10,000.

Miss., Kola.—Kola Lumber Co.'s kilns, planing mills, dry shed and 750,000 ft. lumber.

Miss., Pittsboro.—Pittsboro Gin; loss \$1500 to \$2000.

Miss., Shubuta.—J. M. Ulmer's store building; loss \$4000.

Miss., Tunica.—Weekly Tunica Times' printing plant; F. J. Barlow, editor.

Mo., Carthage.—First Presbyterian Church was not damaged by fire, as lately reported.

N. C., Brim.—E. A. Covington's residence near Brim.

N. C., Greensboro.—Alston & Brown's store at Walker Ave. and S. Spring St.

N. C., Kittrell.—Kittrell College's boys' building.

N. C., Lexington.—H. W. Petree's residence, owned by R. L. Leonard.

N. C., Wilmington.—Germania Mfg. Co.'s spoke and handle factory; loss \$7000.

Okla., Drumright.—Morrow Hotel, Strand Hotel and 2 other buildings; loss \$60,000.

Okla., Oklahoma City.—Oklahoma Refining Co.'s 6 warehouses and 10 to 12 oil-storage tanks.

S. C., Starr.—B. J. Pearman's residence, 3 mi. from Starr; loss \$3000.

Tenn., Shelbyville.—Turner College dormitory.

Tex., Fort Worth.—Dr. Frank Mullins' residence at 1025 Lamar St.; loss on building \$4500.

Tex., Hawkins.—T. A. Thorn's store, loss \$6100; B. F. Alles's store, loss \$3100; J. B. Smith & Co.'s building, loss \$13,000; Bowie Holmes' store, loss \$10,000; Mrs. Minnie L. Cobb's building, loss \$9000; postoffice building.

Tex., Longview.—Seedhouse owned by F. T. Roberts and others.

Tex., San Antonio.—C. Horlan & Co.'s store; loss \$7000.

Tex., Tahoka.—Broken Dollar Store building, owned by D. A. Parkhurst.

Va., Alexandria.—Geo. F. Ziller's residence on Burgundy farm, about 3 mi. from Alexandria.

Va., Bristol.—Jas. P. Wyman's residence; loss \$5000.

Va., Portsmouth.—C. H. Powell's residence near Butts Station; loss \$3000.

Va., Norfolk.—City Market; loss on building about \$10,000. Address The Mayor.

Va., Richmond.—Applefeld Bros.' Store, 707 E. Broad St.; loss \$15,000.

roof; wood floors; cost \$5000; will soon call for bids. (Lately noted.)

Ga., Augusta.—Y. W. C. A. acquired building and will expend \$50,000 for improvements, to include construction and equipment of gymnasium and swimming pool.

Ga., Savannah.—Solomon's Lodge, No. 1, A. F. & A. M., has plans by E. Lynn Drummond, Savannah, for apartment-house; 2 stories; shingle exterior; hardwood floors; vapor heat; slate roof; tile porch; cost \$9000.

La., New Orleans.—I. O. O. F. Widows' and Orphans' General Relief Assn. rejected all bids to erect addition to and remodel building at 614 South St.; R. T. Leland, Secy., Metropolitan Bank Bldg. (Lately noted.)

Miss., Meridian.—Y. M. C. A., H. P. Coor, Secy., will remodel building.

Mo., Kansas City.—Ivanhoe Masonic Temple Co., A. H. Mann, 505 Waldheim Bldg., and others will erect Masonic Temple on Linwood Blvd. and Park Ave.; 92x125½ ft.; reinforced concrete and terra-cotta; tile roof; other details not determined; cost \$160,000; construction begins about Jan. 1. (Lately noted.)

Okla., Tulsa.—Y. W. C. A. is reported to erect \$150,000 building.

Okla., Tulsa.—Tulsa Trades and Labor Council plans to erect temple to cost about \$25,000; J. J. Cease, Eugene Huttie, G. B. Johnson and others, temporary Board of Directors.

Tex., Orange.—Madison Lodge, A. F. and A. M., acquired site and will erect building; Jas. Oliver Hogg, Archt., Kansas City, Mo.

### BANK AND OFFICE

D. C., Washington.—Arlington Corp., Oliver J. Sands, Secy.-Treas., Richmond, Va., opens bids Nov. 1 to erect hotel and office building. (See Hotels.)

Fla., Leesburg.—A. F. and A. M. have plans for alterations and additions to lodge, office and store building. (See Association and Fraternal.)

Ga., Atlanta.—Atlanta Reserve Bank will erect 1-story banking building; site 91½x200 ft.; reported cost about \$150,000.

La., New Orleans.—Hibernia Bank & Trust Co., John J. Gannon, Prest., contemplates erecting office building; architect not selected; plans not definite.

Mo., Kansas City.—Commerce Trust Co., Commerce Bldg., is reported interested in erecting business and office building at 10th and Walnut Sts.; 22 stories; cost \$1,500,000; Graham, Burnham & Co., Archts., 1447 Railway Exchange Bldg., Chicago.

Tenn., Memphis.—George Mohr will erect warehouse and office building. (See Warehouses.)

Tex., Seguin.—Seguin Milling & Power Co. will rebuild warehouse to office building. (See Warehouses.)

### CHURCHES

Ala., Anniston.—Parker Memorial Baptist Church, Rev. Leon M. Latimer, pastor, plans improvements, to include redecorating interior of church, rearranging Sunday-school rooms, increasing seating capacity, etc.; cost \$15,000; Lockwood & Poundstone, Archts., Anniston.

Ark., Ashdown.—First Baptist Church will erect brick building. Address The Pastor.

Ga., Atlanta.—First Presbyterian Church is reported to erect building on Peachtree Rd. Address The Pastor.

Ga., Crawfordville.—Crawfordville Baptist Church will erect building. Address The Pastor.

Ky., Louisville.—Adath Jeshurun congregation, Simon Ades, Prest., plans to erect \$25,000 synagogue.

La., New Orleans.—Rev. John B. Prim of Holy Trinity Church will erect Gentilly Terrace Catholic Church; stucco; red tile roof; Spanish mission type; will also erect parochial school building on unit system; cost of both structures \$21,000; M. D. Ilte, architect, of Baccich & DeMontluzin, New Orleans.

La., New Orleans.—Rev. J. C. Barr of Jefferson Presbyterian will erect \$4000 church at Harahan City.

N. C., Asheville.—Becker Cholin congregation, S. H. Michalove, Prest., will erect church; 35x79 ft.; brick; metal roof; wood floors; cost \$12,000; heating, \$450; lighting, \$350; bids opened about February; construction begins in March. (Lately noted.)

N. C., Sanford.—Baptist Church will remodel building; erect basement for Sunday-

## BUILDING NEWS

### BUILDINGS PROPOSED

#### APARTMENT-HOUSES

Ga., Atlanta.—William K. Jenkins, 87 Gordon St., will erect four 5-room apartment houses; frame; composition shingle roof; wood floors; cost \$300. (Lately noted.)

Ga., Augusta.—Mrs. Jas. J. Carswell contemplates erecting apartment-house.

Ga., Savannah.—Solomon's Lodge, No. 1, A. F. & A. M., will erect apartment-house. (See Association and Fraternal.)

Md., Baltimore.—Edward H. Sadtler is having plans prepared by Stanislaus Russell, 2900 Clifton Ave., Baltimore, for apartment-house at Walbrook Ave. and Windsor Mill Rd.; 18 suites; cost about \$50,000; following bidders estimating: Milton C. Davis, 633 N. Calvert St.; C. W. Littleton, 4312 Liberty Heights Ave.; W. T. Childs, 14-16 W. 20th St.; Henry Mombberger, 24 W. Chase St.; Henry A. Knott, 1340 N. Eden St., all contractors of Baltimore.

Mo., Kansas City.—D. R. Witherup will erect 3-story 6-apartment flat and garage; cost \$11,000.

Mo., Kansas City.—H. E. Black will erect apartment-house; 3 stories; 6 suites; brick; cost \$8500.

Mo., Kansas City.—D. A. White will erect 2-story brick business and apartment building; cost \$7500.

Mo., St. Louis.—James Chapman will erect two apartment-houses; 6 suites of 5 rooms, tile bath, solarium, sleeping porch; indirect lighting; cost about \$75,000; under construction.

Mo., St. Louis.—F. J. Cornwell will erect apartment-house; 55x84 ft.; fireproof; slab floor; steam heat; electric elevators; cost

\$65,000; plans and construction by owner. (Lately noted.)

Mo., St. Louis.—E. B. McClintock will erect \$25,000 apartment-house in 1800 block Montana St.

N. C., Durham.—Hugh P. Markham will erect Colonial Flats; concrete; 2 stories; 8 suites; fireproof; cost \$20,000 to \$25,000.

Okla., Oklahoma City.—Stewart & Wilderson, Oklahoma City, are preparing plans for 10-suite apartment-house; cost \$60,000.

Tex., El Paso.—W. H. Garvey will erect tentment block; cost \$7500.

Tex., San Antonio.—P. T. Shields will erect 2 apartment-houses; cost \$5000.

Va., Richmond.—P. J. Beattie will erect two 2-story brick buildings to contain 4 apartments; cost \$8000.

Va., Richmond.—I. W. Crump will erect 2-story brick building to contain 6 apartments; cost \$9450.

Va., Richmond.—Virginia Realty & Construction Co., 1422 W. Cary St., will erect 3 double flat buildings on 11th St. between Clay and Leigh Sts.; 40.8x60 ft. each; brick; tin roof; pine floors; concrete walks; cost \$25,000; electric lights, about \$900.

#### ASSOCIATION AND FRATERNAL

Fla., Cocoa.—A. F. and A. M. are having plans prepared by R. W. Rummell, Jr., Courtenay, Fla., for building; 3 stories; 6x120 ft.; auditorium to seat 700. (Lately noted.)

Fla., Leesburg.—A. F. and A. M. have plans by George Mackay, Ocala, Fla., for alterations and additions to lodge, store and office building; brick and frame; metal



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school rooms; install heating plant; provide  
chair loft, etc. Address The Pastor.

N. C. Winston-Salem.—Christian Church,  
Rev. C. B. Richards, pastor, plans to erect  
\$5,000 building on W. 4th St.

Okla., Tulsa.—Second Baptist Church plans  
to erect \$25,000 to \$30,000 building. Address  
The Pastor.

S. C. Anderson.—First Baptist Church and  
Anderson College plan to erect parsonage,  
Sunday-school annex and dormitories. (See  
Schools.)

S. C., Greenville.—Christ Church has plans  
by Martin & Ward, Greenville, to remodel  
and erect addition to Sunday-school.

S. C., Jonesville.—Baptist Church will  
erect building; brick veneer; J. W. Lips-  
comb, W. P. Leicester, C. A. Littlejohn, Build-  
ing Com.

S. C., Williamston.—Jas. P. Gossett, Prest.  
of Williamston Mills, will erect church  
building.

Tex., Paris.—Church of Christ, Scientist,  
will erect building at 17th and Kaufman  
Sts.; brick and stone; cost \$12,000. Address  
The Pastor.

Tex., Plano.—First Christian Church will  
expend \$6000 to improve building, install  
pipe organ, etc. Address The Pastor.

Va., Staunton.—First Presbyterian Church  
is having plans prepared by Albert Kelsey,  
Perry Bldg., Philadelphia, for 1-story stone  
Sunday-school and remodeling church build-  
ing; cost \$50,000.

W. Va., Wheeling.—Christian Church, Rev.  
Harry Robertson, Pastor, has plans by Ful-  
ton & Butler, Uniontown, Pa., for building;  
65x98 ft.; brick and concrete; slate roof;  
wood floors; steam heat; cost \$20,000; con-  
struction begins in spring. (Lately noted  
under W. Va., Elm Grove.)

## CITY AND COUNTY

Fla., Gainesville.—Library.—City is consid-  
ering tentative plans by George Mackay,  
Ocala, Fla., for library; brick walls faced  
with impervious face brick; tile roof; oak  
floors in library proper; cement floors in  
basement; cost about \$10,000. (Lately noted.)

Ga., Atlanta.—Alms-house.—Comms. Roads  
and Revenues of Fulton County receive bids  
at office Henry M. Wood, Clerk, Room 518  
Courthouse, until Oct. 27 for improvements  
and additions to alms-house, to include ad-  
ditions "E" and "F" to present buildings  
"B" and "C," together with erecting build-  
ing "G" and porch connecting it with build-  
ing "H;" plans and specifications at office  
C. E. Frazier, Archt., Atlanta, and office of  
Board.

Ga., Cordele.—Library.—City plans to en-  
large and improve library; plans include  
rear addition 14 ft., making same square in-  
stead of round, increasing size three times;  
cost about \$10,000.

La., Bogalusa.—City Hall and Jail.—City  
sold \$30,100 bonds to erect city hall and jail;  
W. H. Sullivan, Mayor. (Lately noted.)

Okla., Woodward.—City Hall.—City votes  
Nov. 7 on \$50,000 bonds to erect city hall.  
Address The Mayor. (Previously noted.)

Tex., Dallas.—Home.—Chas. E. Gross,  
County Auditor, opened bids to erect Dallas  
County Detention Home for Children;  
Gowins & Stearman, low bidders at \$21,514;  
plans by Brickey & Brickey, 1122 Busch  
Bldg., Dallas, call for 2 stories; reinforced  
concrete construction. (Lately noted.)

Tex., Goose Creek.—Jail and Courthouse.—  
Harris County, H. L. Washburn, County Au-  
ditor, Houston, rejected bids to erect jail  
and courthouse; will call for new bids.  
(Lately noted.)

Va., Suffolk.—Armory.—City is reported to  
erect \$40,000 armory; R. H. Brinkley, City  
Engr.

## COURTHOUSES

Ala., Birmingham.—Treasury Dept., Jas. A.  
Wetmore, Act. Supervising Archt., Washing-  
ton, D. C., opens bids Nov. 13 to erect post-  
office and courthouse. (See Government and  
State.)

Fla., De Funiak Springs.—Walton County  
Comms. ordered vote Nov. 21 on \$275,000  
bonds for courthouse and roads. Address  
Chmn. County Comms. (Previously noted.)

Mo., Galena.—Stone County is reported to  
vote Nov. 7 on \$50,000 courthouse bonds.  
Address County Comms.

Tex., Brownwood.—Brown County Com-  
missioners are considering erecting addition  
to courthouse; cost about \$35,000.

Tex., Refugio.—County votes Nov. 25 on  
\$75,000 bonds to erect courthouse; employed  
Atlee B. Ayres, San Antonio (conditionally)  
to prepare plans; 2 stories; brick and con-

crete; fireproof; pitch and gravel roof;  
pine and tile floors; cost \$65,000. (Lately  
noted.)

W. Va., Madison.—Boone County defeated  
\$50,000 bonds to erect courthouse. (Lately  
noted.)

## DWELLINGS

Ala., Attalla.—Dr. J. N. Sledge will erect  
residence.

Ala., Attalla.—James Tramel will erect res-  
idence.

Ala., Attalla.—Joseph Rhea will erect 6  
residences.

Ala., Attalla.—Joseph Guest will erect res-  
idence.

Ala., Attalla.—Joseph Noojin will erect  
residence.

Ala., Attalla.—Oscar Cox is reported to  
erect 6 residences.

Ala., Attalla.—Oscar Noojin will erect 2  
residences.

Ala., Attalla.—W. F. Stowers is reported  
to erect 50 dwellings.

Ala., Gadsden.—Otto Agricola will erect  
residence on Lookout Mountain.

Ala., Gadsden.—R. S. Smith is having  
plans prepared by A. D. Simpson, Gadsden,  
for residence; 6 rooms.

Ark., Little Rock.—Will Cook will erect 2-  
story frame residence; cost \$3000.

D. C., Washington.—Boss & Phelps, Harry  
K. Boss, Prest., 714 14th St. N. W., have  
plans by Landvoigt & Cook, Washington, for  
3 residences 2 stories; brick; cost \$12,000;  
construction by owners.

D. C., Washington.—Chas. W. King, Jr.,  
will erect residence; 2 stories; brick; cost  
\$4500; N. R. Grimm, Archt., 606-07 Bond  
Bldg., Washington.

D. C., Washington.—D. G. Moxley has  
plans by C. E. Webb, 821 12th St. N. W.,  
Washington, for three 2-story brick resi-  
dences; cost \$3000.

D. C., Washington.—F. D. McAuliffe, 500 D  
St. S. E., will erect dwellings at 1249-57 Kear-  
ney St. and 1756 Willard St.; cost \$7000.

D. C., Washington.—Harry A. Kite, 1338 G  
St. N. W., has plans by A. E. Landvoigt, 1403  
New York Ave. N. W., Washington, for ten  
2-story brick dwellings at 406-412 13th St.  
N. E. and 1238-1248 D St. N. E.; cost \$30,000.

D. C., Washington.—Jas. C. Nealon, 723  
15th St. N. E., will erect 4 dwellings; 2 sto-  
ries; brick; cost \$11,000.

Fla., Port Seawall.—Albert F. Hoffmeister,  
Spring Lake, N. Y., will erect residence.

Fla., Port Seawall.—J. S. Dunn, Pittsburgh,  
Pa., will erect residence.

Fla., Port Seawall.—Martin Maloney, Phila-  
delphia, Pa., will erect residence; plans by  
and construction under supervision of Leroy  
Newman, Philadelphia.

Fla., Tampa.—Dr. E. S. Gilmer has plans  
by Fred J. James, Tampa, for residence; 2  
stories; brick veneer; shingle roof; cost  
\$10,000 to \$12,000; completion about Jan. 15.

Fla., Tampa.—Doyle C. Carlton has plans  
by Fort & Parslow, Tampa, for residence in  
Hyde Park; 2 stories; hollow tile and  
stucco; composition shingle roof; wood  
floors; gas heat; electric lights; cost \$4000;  
bids opened Oct. 19; construction begins in  
30 days. Address architects. (Lately noted.)

Fla., West Palm Beach.—Charles Drawdy  
will erect residence in Pine Gardens.

Fla., West Palm Beach.—J. O. Braden,  
Jupiter, Fla., will erect residence in Coco-  
nut Lodge.

Ga., Atlanta.—H. W. Nichols will erect 2-  
story brick-veneer residence; cost \$4500; day  
labor.

Ga., Atlanta.—Dr. J. H. Powell will erect  
residence on Peachtree Rd.; bungalow type.

Ga., Augusta.—Miss Jenna H. Garrett and  
Mrs. Leona G. Westmoreland are having  
plans prepared by Philander P. Scroggs, Au-  
gusta, for residence; 2 stories; stucco on  
hollow tile; warm-air heat; electric lights;  
plumbing; Spanish tile roof; cost \$8000 to  
\$10,000; plans ready about Oct. 15.

Ga., Augusta.—W. R. Walton, Jr., is hav-  
ing plans prepared by Philander P. Scroggs,  
Augusta, for 2-story residence; stucco on  
hollow tile; gas steam radiators; cost \$5000.

Ga., Austell.—Mrs. Sallie Austin, R. F. D.  
No. 2, Austell, will erect 8-room bungalow to  
replace structure lately noted damaged by  
fire.

Ga., Pavo.—A. Foreman will erect resi-  
dence to replace structure lately noted dam-  
aged by fire; 7 rooms; bungalow style; steel  
shingle roof.

Ky., Louisville.—Harvey Shanks will erect  
brick dwelling; cost \$6000.

La., New Orleans.—M. A. Baccich will erect  
bungalow on Gentilly Ave.

La., New Orleans.—Dr. C. W. Allen will  
erect 2-story residence; cost \$8550.

La., New Orleans.—M. Suzer will erect 2  
double cottages; cost \$8500.

Md., Baltimore.—Ellicott Heights Co. has  
plans by Geo. R. Morris, Title Bldg., Balti-  
more, for 24 dwellings at 3001-47 Arunah  
Ave.; 16 14x44.8 ft.; 8 20x30 ft.; 2 stories;  
cost \$42,000.

Md., Baltimore.—Leon Baiginni has plans  
by Stanislaus Russell, 2900 Clifton Ave., Balti-  
more, for six 2-story brick residences at  
Windsor and Slingluff Aves.; 22x34 ft.; cost  
\$12,000; also has plans by Mr. Russell for  
eight 2-story brick dwellings at Windsor  
Ave. and Dukeland St.; contractors estimat-  
ing on last operation are H. W. Johnson,  
3600 Windsor Mill Rd.; Henry A. Knott, 1340  
N. Eden St.; Charles Herbold & Son, 2768  
W. North Ave., all of Baltimore, and Jacob  
Schultz.

Md., Blue Mountain.—Blue Mountain Land  
Co. is reported organized to erect number  
dwellings, etc. (See Hotels.)

Mo., Kansas City.—Geo. S. Clements will  
erect residence; 2 stories; stucco veneer;  
cost \$3000.

Mo., Kansas City.—W. D. Frase will erect  
2-story stucco-veneer residence; cost \$6000.

Mo., Kansas City.—Earl C. Hallar will  
erect two 2-story stucco-veneer residences;  
cost \$8000.

Mo., Kansas City.—J. C. Mettrews will erect  
2-story frame dwelling; cost \$6000.

Mo., Kansas City.—Elmer E. Hay will  
erect residence; 22x34 ft.; stone and stucco;  
shingle roof; oak floors; cost \$3200; heating,  
\$400; lighting, \$80. (Lately noted.)

Mo., Kansas City.—W. A. Rupe will erect  
two 1-story stucco dwellings; cost \$5000.

Mo., Kansas City.—Zurn Building & In-  
vestment Co. will erect 10 residences at 36th  
and Bellefontaine Ave.; frame and stucco  
veneer; shingle roof; wood floors; hot-air  
heat; cost \$25,000; plans and construction by  
owner. (Lately noted.)

Mo., Kansas City.—J. D. Nichols will erect  
6 residences on West Sixty-third St. Ter.;  
2 stories; cost \$22,000.

Mo., Kansas City.—O. E. O'Connor will  
erect residence; 2 stories; frame; cost \$5000.

Mo., Kansas City.—Mrs. Leeland Eysel will  
erect 2-story stucco-veneer residence; cost  
\$4500.

Mo., St. Louis.—Dr. W. B. Shelp, Bucking-  
ham Hotel, will erect residence; 7 rooms,  
reception hall and sun parlor; sleeping  
porch; garage for 2 cars; cost \$10,000; com-  
pletion about Jan. 1.

Mo., St. Louis.—Geo. F. Bergfeld Invest-  
ment & Construction Co., 610 Chestnut St.,  
has plans by T. C. Lee, St. Louis, for resi-  
dences on Waterman Ave., between Adelaide  
and Trinity Sts.; 9, 10 and 11 rooms; stone  
and brick; slate and tile roofs; wood floors;  
hot-water heat; gas and electric lights; cost  
\$10,000 each; construction by owner. (Late-  
ly noted.)

Mo., St. Louis.—Alexander Galt has plans  
by Guy Study, St. Louis, for 12 one-story  
brick bungalows; 5 rooms, tile bath, sleep-  
ing porch, etc.

N. C., Raleigh.—F. P. Brown will erect 10-  
room residence; cost \$6500.

N. C., Wilmington.—J. B. Fox will erect  
residence in Carolina Pl.; cost \$3200.

N. C., Wilmington.—Louis E. Hall will  
erect residence in Winoca Terrace.

N. C., Wilmington.—Oliver T. Wallace, 1512  
Market St., will erect residence; 28x70 ft.;  
frame; shingle roof; rift-pine floors; cost  
\$5000; Kelsey heating system, \$500. (Lately  
noted.)

N. C., Wilmington.—Thos. H. Wright will  
erect residence in Winoca Terrace.

N. C., Winston-Salem.—R. J. Reynolds pro-  
poses to erect 50 dwellings on Wheeler Ave.

S. C., Chester.—J. Will White will erect  
residence.

S. C., Greenville.—Dr. O. O. Fletcher will  
erect \$2500 residence.

Tenn., Memphis.—Geo. W. Person & Co.  
will soon open bids to erect 6 dwellings in  
Glenview Park; stucco, brick and stone;  
also plans to erect 16 additional dwellings  
in same subdivision this season.

Tenn., Nashville.—Frank Thomas will erect  
residence; brick veneer; cost \$3500.

Tenn., Nashville.—J. W. Spillers will erect  
brick-veneer residence; cost \$5000.

Tenn., Nashville.—W. H. Binns will erect  
brick bungalow; cost \$5000.

Tenn., Newport.—Dr. J. F. Woodward will  
erect residence; 2 stories; brick veneer; hot-  
water heat; oak interior finish; metal roof;  
contract let. (See Machinery Wanted—  
Building Materials.)

Tex., Dallas.—Chas. S. Sanger will erect  
residence on South Blvd.; 55x60 ft.; hollow  
tile and stucco; shingle roof; hardwood  
floors; cost \$10,000 to \$15,000; heating, \$400  
to \$500. (Lately noted.)

Tex., El Paso.—Mayfield Building & Im-  
provement Co. will erect 3 bungalows; cost  
\$2500.

Tex., El Paso.—Jolly & Morris will expend  
\$8000 to repair building at 817 N. El Paso  
St.; also erect \$8000 bungalow at Grama  
and Tularosa Sts.

Tex., El Paso.—Ramey Bros. will erect 2  
bungalows on La Luz St. and Lebanon St.;  
cost \$3300.

Tex., El Paso.—Perry Kirkpatrick Co. will  
erect bungalow on Hastings St.; cost \$3000.

Tex., Houston.—F. E. Shofner will erect  
2 dwellings; cost \$6500.

Va., Alexandria.—Coleman S. Batcheller will  
remodel building for store and residence  
building. (See Stores.)

Va., Richmond.—Virginia Realty Construc-  
tion Co. will erect six 2-story brick dwell-  
ings on N. 11th St.; cost \$24,000.

Va., Richmond.—W. F. Drinkard, Jr., will  
erect brick dwelling at 1821 W. Main St.;  
cost \$3250.

Va., Richmond.—H. L. Williams will erect  
frame dwelling; cost \$3300.

Va., Richmond.—Wm. J. Morrisette will  
erect 2-story brick dwelling; cost \$4300.

Va., Richmond.—E. K. Branch will repair  
brick dwelling; cost \$3000.

Va., Richmond.—C. Pickett Lathrop re-  
jected all bids and deferred erection of resi-  
dence; 2½ stories; frame; shingle roof;  
wood floors; furnace heat; W. Duncan Lee,  
Archt., Richmond. (Noted in September.)

Va., Richmond.—Lewis Pilcher will erect 2-  
story frame residence; cost \$4200.

Va., Richmond.—National Homebuilders'  
Corporation, Moore Bldg., organized; con-  
templates building 200 to 250 dwellings in  
suburbs of towns in Virginia, in series of 50  
to 150. (See Machinery Wanted—Concrete  
Bricks; Concrete Brick Machinery; Concrete  
Sprayers.)

Va., Roanoke.—H. B. Keys will erect  
2-story brick-cased dwelling; cost \$3000.

## GOVERNMENT AND STATE

Ala., Birmingham.—Postoffice and Court-  
house.—Treasury Dept., Jas. A. Wetmore,  
Act. Supervising Archt., Washington, D. C.,  
opens bids Nov. 13 to erect postoffice and  
courthouse 3 stories; pressed brick and  
granite; cost about \$1,000,000; drawings and  
specifications at office John D. McNeel, Cust-  
odian, and Mr. Wetmore as above. (Lately  
noted.)

Va., Franklin.—Postoffice.—Treasury Dept.,  
Jas. A. Wetmore, Acting Supervising Archt.,  
Washington, D. C., opens bids Nov. 22 to  
erect postoffice; drawings and specifications  
from custodian of site, Franklin, and Mr.  
Wetmore as above.

Va., Richmond.—Office.—State is having  
plans prepared by Carneal & Johnston, Rich-  
mond, for remodeling Davis residence for  
State offices.

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plans prepared by Carneal & Johnston, Rich-  
mond, for remodeling Davis residence for  
State offices.

Fla., Daytona.—Hotel Clarendon, C. J. Root, Asst. Mgr., will not erect addition to hotel (previously noted) this year.

Fla., Key West.—P. Ullendorf and others are promoting erection of tourist hotel.

Fla., Sebring.—Kenilworth Lodge Co., Geo. E. Sebring, Pres., has plans by Bonfoey & Elliott, Tampa, Fla., for Kenilworth Lodge, tourist hotel; 200 rooms, each equipped with private bath; 3 stories and basement, latter to contain various baths as used in sanatoriums; exterior stucco finish on metal bath; tile roof; 350 lin. ft. of porch, 14 ft. wide; sun parlors, palmroom, etc.; will complete 100 rooms at present, balance next summer; initial cost \$100,000; construction, by day labor, begun. Address architects. (See Machinery Wanted—Heating.)

Ga., Savannah.—A. M. Barbee of Isle of Hope is reported to erect 50-room hotel.

La., New Orleans.—Kingsley House plans extensive improvements; Simon Weis is interested.

Md., Blue Mountain.—Blue Mountain Land Co., Abbott Morris, Pres., Norfolk, Va., is reported organized to erect hotel on site of old Blue Mountain House; will also erect number of cottages.

Miss., Tunica.—W. L. Bankston will erect 2-story hotel.

Mo., Joplin.—Connor Hotel Co. will not erect annex previously reported.

S. C., Gaffney.—Gaffney Hotel Co., organized with J. N. Lipscomb, Pres.; D. C. Phillips, V. P.; E. H. De Camp, Secy.; G. G. Byers, Treas.; will erect fireproof hotel; steel reinforced construction; tile and hardwood floors; steam heat; electric lights; cost \$50,000. (Lately noted.)

S. C., Union.—J. F. Caudle will erect 23-room hotel on S. Gadhery St.

Va., Bedford.—Walter Lyle, T. W. Richardson, Hunter Miller and others are reported to erect hotel on peak of Otter Mountain.

Va., Norfolk.—Victoria Hotel management is considering erecting 2 or 3 additional stories to building.

Va., Roanoke.—Norfolk & Western Ry. will erect addition to Hotel Roanoke, etc. (See Railway Stations, etc.)

### MISCELLANEOUS

Ala., Mobile.—Fair.—Gulf Coast Fair Assn. will erect 2 stock barns for cattle and hogs; 50x80 ft.

Fla., Fort Lauderdale.—Library.—Woman's Club has plans by Clarence Wait, Fort Lauderdale, for library building.

Fla., Winterhaven.—Clubhouse.—Apollo Club plans to construct pier and clubhouse, latter with auditorium, pool garden, etc.

Mo., Independence.—Recreation Center.—Reorganized Latter Day Saints' Church, F. M. Smith, Pres., will erect building for recreation center; 50x100 ft.; 16 ft. high.

S. C., Columbia.—Woman's Building.—Woman's Building Assn., Mrs. W. B. Burney, Pres., has plans by Urquhart & Johnson, Columbia, for woman's building; 4 stories; 39 ft. wide; 2 stories on lower floor; auditorium to seat 235, and 14 bedrooms on second floor; 2 upper floors each to contain 18 dormitories; roof garden; gymnasium, swimming pool, heating plant, etc., in basement. (Previously noted.)

S. C., Greenville.—Exposition.—Southern Textile Exposition Co., Inc., P. O. Box 572, Robt. F. Bowe, Secy., will erect exposition building to contain 60,000 sq. ft. exposition space, auditorium and armory for local military companies. (Previously noted.)

S. C., Spartanburg.—Undertaking Establishment.—J. F. Floyd Undertaking Co. will erect 75-ft. extension in rear of building.

Tenn., Tullahoma.—Reformatory.—Board of Managers of Tennessee Vocational Reformatory for Girls, G. W. Brown, Chrmn., Nashville, receives bids until Nov. 1 to erect 2 dormitories at Tullahoma, Tenn.; plans at office Henry C. Hibbs, Archt., Nashville, and Builders' Exchange.

Tex., El Paso.—Lumber-yard.—Gaston Lumber Co. will erect building for lumber-yard; cost \$4500.

Tex., Hubbard.—Bathhouse.—W. L. Odell is reported in erection of bathhouse and sanitarium addition.

Va., Roanoke.—Citadel.—Salvation Army plans to erect \$40,000 citadel; C. E. Michael (Chrmn.), R. H. Angell, T. T. Fishburne and others, Advisory Board.

### RAILWAY STATIONS, SHEDS, ETC.

Ga., Rochelle.—Seaboard Air Line R. R., W. D. Faucette, Chief Engr., Norfolk, Va., and Ocilla Southern R. R., D. C. Smith,

Gen. Mgr., Ocilla, Ga., will erect union station.

Md., Baltimore.—Baltimore & Ohio R. R., R. N. Beglen, Chief Engr., will erect passenger station at Gay St. and Belt Line Ry.; brick; 25x40 ft.; tile roof; tile, wood and concrete floors; tile base and wood wainscote in general waiting-room; tile wainscote in toilets; concrete foundation; cost \$10,000; steam heat; plans by M. A. Long, company's architect.

N. C., Asheville.—Norfolk Southern R. R., F. L. Nicholson, Ch. Engr., Norfolk, Va., opened bids to erect passenger and freight station; 30x124 ft.; concrete foundation; brick walls; metal or asbestos shingle roof. (Lately noted.)

N. C., Durham.—Southern Ry. Co., B. Hermann, Ch. Engr. M. W. and S. Washington, D. C., will erect freight depot; brick; work begins about Jan. 1.

Okla., Oklahoma City.—Chicago, Rock Island & Pacific Ry., C. A. Morse, Chief Engr., Chicago, and St. Louis & San Francisco R. R., F. G. Jonah, Chief Engr., will erect union depot; reported cost, several hundred thousand dollars; construction begins about Jan. 1, 1917.

Okla., Sand Springs.—Sand Springs Ry. is reported to erect \$150,000 passenger station; 4 stories; reinforced concrete; H. T. Morrison, Gen. Mgr., Sand Springs.

Okla., Tulsa.—Missouri, Kansas & Texas Ry. Co., L. F. Lonnbladh, Ch. Engr., Dallas, Tex., will alter and enlarge freight station.

S. C., Hartsville.—Atlantic Coast Line R. R., J. E. Willoughby, Ch. Engr., Wilmington, N. C., will erect \$4500 addition to cotton shed.

Va., Roanoke.—Norfolk & Western Ry., J. E. Crawford, Ch. Engr., Roanoke, is reported to expend \$380,000 for freight station; 2-story freight office; 50x140 ft.; brick; warehouse, 55x740 ft.; brick and steel; 2 covered transfer platforms, 18x800 ft.; 4 separate entrances and driveways; also improve passenger station; erect addition to Hotel Roanoke, etc. (Lately noted.)

### SCHOOLS

Fla., Titusville.—Special Tax School Dist. No. 1 of Brevard County will issue \$34,000 bonds for school improvements; E. E. Macy, Supt. of Public Instruction, Eau Gallie, Fla.

Ga., Reynolds.—School Board, W. F. Weaver, Chrmn., has plans by Hupp & Shelverton, Macon, for school; 8 classrooms and auditorium; brick and joist construction; tin roof; steam heat; cost \$20,000; bids opened Oct. 20. (Lately noted.)

Ga., Stockbridge.—Chrmn. Board of Education is receiving bids to erect 1-story school building; J. Winthrop Wolcott, Archt., Griffin, Ga.

La., New Orleans.—School Board has plans by E. A. Christy, Room No. 25, City Hall, New Orleans, for school at Numa, Diana, Behrman and Newton Sts.; 1 story and basement; frame and stucco; slate roof; cost \$25,000; bids opened Oct. 31. Address Comms. of Public Finances, City Hall. (Lately noted.)

Md., Baltimore.—City votes Nov. 7 on \$1,000,000 bonds to erect schools at Poplar Grove St. near West Park, School 68 in Southwest Baltimore, one near Clifton Park and one in Northeast Baltimore, etc.; Albert L. Fankhael, Chrmn. Bldg. Committee. (Lately noted.)

Miss., Meridian.—Alamucha Consolidated School Dist. voted \$3500 bonds to erect school. Address County Supt. of Public Instruction.

Mo., Booneville.—Kemper Military Academy is having plans prepared by T. W. Best, Sedalia, Mo., for dormitory and dining hall; 3 stories; 130x130 ft.; cost \$100,000.

N. C., Auburn.—Auburn and Mt. Moriah Consolidated School Dist. will erect 4-room school and teacherage. Address Dist. School Trustees.

N. C., Kannapolis.—County Board of Education plans to erect \$5000 brick school.

N. C., Raleigh.—Agricultural and Mechanical College will construct 4 or 5 sections reinforced concrete bleachers; plans by C. L. Mann, Engr., West Raleigh; bids opened Oct. 16.

Okla., Oklahoma City.—Oklahoma County, M. Cornelius, Clerk, rejected all bids to erect school; will have new plans drawn and bids readvertised. (Lately noted.)

Okla., Sapulpa.—Sapulpa School Dist. is reported to soon vote on \$75,000 high-school bonds. Address Dist. School Trustees.

S. C., Anderson.—First Baptist Church and Anderson College plans to erect 2-story 10-room brick parsonage to cost \$5000; 3-story

brick Sunday-school annex, cost \$12,000, for First Baptist Church, and 2-story 50-room dormitories, to cost \$40,000, for Anderson College; brick veneer; slate roof; double pine floors; heating not decided; city lighting; bids opened Jan. 4; Casey & Fant, Archts., Anderson. Address J. E. Barton.

Tenn., Benton.—Polk County Board of Education will issue \$5500 warrants, and receives bids until Oct. 30 to complete basement and auditorium of Benton Grammar School on inside, for heating plant and plumbing, and slate blackboards; plans and specifications at office of Board, Benton, and W. H. Sears, Archt., Chattanooga, Tenn. (See Machinery Wanted—Heating and Plumbing; Blackboards.)

Tenn., Isabella.—Polk County Board of Education, Benton, Tenn., will issue \$8000 warrants to erect school.

Tenn., Nashville.—John F. Draughon, representing Draughon interests, acquired residence on 8th Ave.; will erect 52-ft. addition in rear and remodel for Draughon's College and Draughon Text-Book Co.

Tex., Canutillo.—Vinton School Dist. voted \$3000 bonds to complete school at Canutillo. Address School Trustees.

Tex., Fort Worth.—Texas Women's College plans to erect dormitory.

Tex., Gay Hill.—Gay Hill School Dist. will erect school. Address Dist. School Trustees.

Tex., San Antonio.—School Board, Chas. S. Meek, Supt., has plans by Ralph H. Cameron, San Antonio, for Main Avenue High School; 3 stories; concrete framing; brick and terra-cotta facings; 13 rooms; auditorium to seat 1400; cost \$110,000; central heating plant, \$21,000.

Tex., San Antonio.—Beacon Hill School petitioned School Board to erect school building; Chas. S. Meek, Supt. Public Schools.

Tex., Waxahachie.—City voted \$120,000 bonds for high school, sewage-disposal plant and street improvements. Address The Mayor. (Lately noted.)

Va., Newport News.—Special Building Com. of School Trustees will consider plans for white school included in \$130,000 school bonds to be issued. (Previously noted.)

### STORES

Ala., Montgomery.—Jeffers Bros. will expend \$622 to remodel 2-story frame building.

Ark., Ozark.—Mrs. L. J. Davidson will erect brick business building.

Ark., Ozark.—Edgin Bros. will erect brick business building.

Fla., Chipley.—B. B. Callaway will erect 2-story store; brick.

Fla., Leesburg.—A. F. and A. M. have plans for alterations and additions to lodge, store and office building. (See Association and Fraternal.)

Fla., Tarpon Springs.—A. Leouis will erect brick business building; 3 stores, one for garage 50x60 ft. cost about \$6000.

Ga., Atlanta.—Georgia Realty Co., J. R. Smith, Pres., will erect 2-story concrete building at 51 Walton St.; 40x100 ft.; cost \$20,000.

Ky., Louisville.—Fidelity & Columbia Trust Co. will remodel building at 827-29 Main St.; cost \$26,000; D. X. Murphy & Bro., Archts., Louisville. (Lately noted.)

Ky., Whitesburg.—Dr. D. F. Smith will erect business building and hospital; cost \$15,000; contract let Nov. 8.

Md., Baltimore.—Elie Sheetz, 505-07 12th St. N. W., Washington, D. C., acquired building adjoining present location at Clay and Liberty Sts. and will expend \$10,000 to remodel both structures; definite plans not decided. (Lately noted.)

Md., Baltimore.—E. T. Newell & Co., 218 W. Franklin St., will remodel building at 519 N. Howard St.

Mo., Kansas City.—D. A. White will erect business and apartment building. (See Apartment-houses.)

Mo., Kansas City.—Commerce Trust Co., Commerce Bldg., is reported interested in erecting business and office building. (See Bank and Office.)

## BUILDING CONTRACTS AWARDED

### APARTMENT-HOUSES

Ala., Mobile.—A. A. Lackland let contract to E. J. Raub & Co., Mobile, to erect store and apartment building; steel, brick and concrete; Barrett specification roof; wood floors; cost \$25,000; Geo. B. Rogers, Archt., Van Antwerp Bldg., Mobile. (Lately noted.)

Mo., Kansas City.—Samuel Brancato will erect 2-story brick business block; cost \$5000.

Mo., St. Louis.—Turner Real Estate Co. is reported to erect 3-story-and-basement building at 8th and Olive Sts. for Greenfield Bros. Clothing Co.; red matt brick; white tile and terra-cotta trim; first floor with tiled floors laid in black cement; other floors hard maple; electric elevator; Circassian walnut fixtures; 31,000 sq. ft. floor space; Albert R. Groves, Archt., 314 N. St., St. Louis.

Mo., St. Louis.—Burdeau Real Estate Co. has plans by Preston J. Bradshaw, International Life Bldg., St. Louis, for building at Taylor Ave. and Olive St.

N. C., Pollockville.—John Whitty will erect brick store building.

N. C., Newbern.—S. Copley & Sons acquired building at 89-91 Middle St. and will remodel and enlarge; erect 3-story 85-ft. addition in rear, install electric elevator, overhead package-carrying system, etc.

N. C., Spray.—Floyd Hill Furniture Co. will erect business building; under construction.

N. C., Wilson.—Hackney Bros. will expend \$5000 to remodel brick stores.

S. C., Greenville.—J. O. Jones and H. B. Bates will erect \$8000 store building.

Tenn., Memphis.—E. J. Pearson will expend \$2500 to construct steel, cast-iron and plate-glass store fronts.

Tenn., Nashville.—John F. Draughon will remodel building for Draughon Text-Book Co., etc. (See Schools.)

Tex., El Paso.—A. M. Horne will erect building on West Overland St.; cost \$5000.

Tex., Paris.—A. P. Parks will erect frame and brick 1-story-and-basement store building; cost \$5000.

Tex., Paris.—W. O. Richey will erect 2 brick and concrete stores and garage at Lamar and 23d Sts.; cost \$9000.

Va., Alexandria.—Coleman S. Batcheller will remodel and erect brick addition to rear 2-story brick building at 704 King St.; first floor for business purposes; upper floors for residence.

W. Va., Wheeling.—Miller Bros. are reported to erect \$15,000 wholesale grocery building.

### THEATERS

D. C., Washington.—Knickerbocker Theater Co., Harry Crandall, George T. Smallwood, Barry Buckley and others, have plans by Reginald W. Geare, 327 Woodward Bldg., Washington, for \$150,000 theater and concert building at 18th St. and Columbia Rd., to be known as Crandall's Knickerbocker; 4 stories; reinforced concrete; stone-trimmed brick front; marquise over main entrance; seating capacity 1800 people.

Fla., Orlando.—P. Phillips is reported to erect \$50,000 theater.

S. C., Greenville.—Dr. W. W. Dodson acquired building on Laurens St. and is reported to convert into opera-house; plans prepared.

### WAREHOUSES

Mo., Butler.—Bennett-Wheeler Mercantile Co. will erect storage warehouse; 40x100 ft.; hardwood frame covered with corrugated roofing; cement floors; architect or contractor not selected.

Mo., Kansas City.—C. J. Flanagan is reported promoting erection of warehouse; 5 or 7 stories; 225,000 sq. ft. floor space; cost about \$300,000.

S. C., Chester.—Chester Hardware Co. will erect warehouse; 100x200 ft.

Tenn., Memphis.—George Mohr will erect brick warehouse and office building to be occupied by National Biscuit Co.; 90x120 ft.; cost \$10,000.

Tex., Seguin.—Seguin Milling & Power Co., Eugene Nolte, Pres., will rebuild warehouse and office building lately noted damaged by fire; fireproof construction.

Tex., Texas City.—Texas City Transportation Co., E. A. Rynum, V. P. and Gen. Mgr., will erect pier warehouse; 60x350 ft.; 1 story; wood frame; corrugated iron; 16-ft. apron on one side; will rest on 14-ft. dredged clay fill with creosoted sheet piling on 2 sides and concrete walls on other 2 sides; cost \$50,000; construction begins in 20 to 30 days; Theo. A. Polansky, Ch. Engr., Texas City.

Va., Richmond.—Thos. W. Ellett, Cameron Store Co., let contract to E. L. Bass & Bro. Richmond, to erect tenements on Paury St.; brick; tin roofs. (Lately noted.)

### ASSOCIATION AND FRATERNAL

Mo., Springfield.—Y. W. C. A. let contract to Pauly & Ipsen, Springfield, to erect build-



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plans

cost \$14,000;

G. Tandy

Smith, Archt.,

Box 354, Paducah, Ky. (Late-

ly noted.)

Tex., Paris.—First Baptist Church let

contract to Walter White, Paris, to erect

building; 80x107 ft.; brick; wood joist

construction; wood joist floors; cost \$40,000; Lang &

Whitehill, Curtis, Broad & Lightfoot, Archts.,

Paris. Address Fulson Moore. (Late-

ly noted.)

Va., Richmond.—Woodland Heights Baptist

Church let contract to G. E. Lockman & Co.

to erect 2-story brick and stone church and

Sunday-school at 31st and Spring Hill Sts.;

hot-air heat; electric lights; cost \$15,000;

J. M. McMichael, Archt., Charlotte, N. C.

(Late-

ly noted.)

W. Va., Jenkin Jones.—Pocahontas Consoli-

dated Collieries Co. let contract to W. B.

Moore, Princeton, W. Va., for brick work on

Union Church; 30x40 ft.; brick; hot-air

heat; cost \$7,000. (Late-

ly noted.)

W. Va., Keyser.—Keyser Presbyterian

Church, Rev. A. N. Perryman, Pastor, 130

Overton Pl., let contract to C. W. Shelly,

Keyser, to erect Sunday-school annex; 40x60

ft.; brick; stone trim; metal shingle roof;

plum floors; furnace heat; electric lights;

cost \$10,000; is also repairing church build-

ing; 50x167 ft.; 2 stories and basement; fire-  
proof; tar and gravel roof; cement and wood  
floors; cost \$65,000; O. L. Brettner, Archt.,  
Springfield. (Late-

## BANK AND OFFICE

Ark., Little Rock.—England National Bank  
is reported to have let contract to E. L.  
Long, Little Rock, to remodel interior of  
building; cost \$8000.

Ga., Tifton.—J. W. O'Neal and B. H. Mc-  
Leod let contract to W. H. Spooner, Tifton,  
to erect lately-noted store and office building  
at Love Ave. and 2d St.; 50x100 ft.; 2 sto-  
ries; brick with granite trimmings; tin  
roof; concrete base with wood floors; cost  
\$15,000; steam heat, about \$1000; cement  
walks, about \$500; C. W. Fulwood, Jr.,  
Archt., Moultrie, Ga. Address Contr. (See  
Machinery Wanted—Hoisting Outfit.)

Mo., St. Louis.—Mercantile Trust Co. let  
contract to Westlake Construction Co., 717  
Locust St., St. Louis, to erect 3-story addi-  
tion; 127x135 ft.; reported cost about \$500,  
000. (Noted in July.)

Tenn., Memphis.—Goodwyn Institute let  
contract at 109,585 to J. E. Hollingsworth &  
Co., Memphis, to erect addition to building;  
7 stories; 32x75 ft.; reinforced concrete and  
brick; stone and terra-cotta trim; 40 addi-  
tional offices; increase library space; provide  
store on first floor, 32x40 ft., etc.; Hughes  
Heating Co., Memphis, has contract at \$7367  
for heating and ventilating; completion by  
Aug. 1, 1917; John Galsford, Archt., Mem-  
phis. (Late-

ly noted under Schools.)

Va., Norfolk.—N. B. Joynes let contract to  
Jesse Johnson, Norfolk, to erect business  
and office building; 40x80 ft.; brick; gravel  
roof; wood floors; electric lights; cement  
sidewalks; cost \$10,000; Jas. W. Lee, Archt.,  
48 Seaboard Bank Bldg., Norfolk. (Late-

ly noted.)

W. Va., Mullins.—Bank of Wyoming let  
contract to W. B. Moore, Princeton, W. Va.,  
for brick work on bank and hotel building;  
60x100 ft.; 5 stories; brick and tile; cost  
\$60,000. (Late-

ly noted.)

## CHURCHES

Ga., Madison.—Madison Baptist Church  
let contract to Little & Phillips, Cordele,  
Ga., to erect Sunday-school building; brick;  
50x60 ft.; composition roof; steam heat;  
cost \$20,000; Edwards & Sayward, Archts.,  
Candler Bldg., Atlanta. (Late-

ly noted.)

Md., Frederick.—Utica Reformed Church,  
Rev. Cyrus Glessner, pastor, will erect brick  
parsonage; Frederick Realty Co., builder,  
Frederick; construction under supervision  
of Mr. Cannon, Contr., Yellow Springs, Md.

Tenn., Paris.—Paris Presbyterian Church  
let contract to Otto Hourli, Paris, to erect  
building; brick and stone; Barrett speci-  
fication roof; wood floors; city electric lights;  
cost \$14,000; hot-air heat, \$400; G. Tandy  
Smith, Archt., Box 354, Paducah, Ky. (Late-

ly noted.)

Tex., Paris.—First Baptist Church let

contract to Walter White, Paris, to erect

building; 80x107 ft.; brick; wood joist

construction; wood joist floors; cost \$40,000; Lang &

Whitehill, Curtis, Broad & Lightfoot, Archts.,

Paris. Address Fulson Moore. (Late-

ly noted.)

Va., Richmond.—Woodland Heights Baptist

Church let contract to G. E. Lockman & Co.

to erect 2-story brick and stone church and

Sunday-school at 31st and Spring Hill Sts.;

## DWELLINGS

Ala., Bessemer.—Tom Bonduris let contract  
to erect residence on Third Ave.

Ala., Bessemer.—L. L. Lockwood let con-  
tract to Crowell Bros., Bessemer, to erect  
bungalow.

Ala., Bessemer.—Cecil Cowan let contract  
to T. A. Knight, Bessemer, to erect resi-  
dence.

Fla., Miami.—E. B. Len let contract to  
erect \$9000 residence.

Fla., St. Augustine.—Harry W. Harmon let  
contract to Charles Shugart to erect 6-room  
residence on Almeria St.

Fla., St. Augustine.—J. N. Poman let con-  
tract to Willard Masters, St. Augustine, to  
erect 10-room addition to residence.

Fla., St. Petersburg.—H. M. Pancoast let  
contract on percentage basis to W. C.  
Schutte, St. Petersburg, to erect 10 dwell-  
ings; part frame and part tile; roll, asphalt  
shingle and tile roofs; cost \$3000 to \$10,000  
each; Southern Construction Co., 218 Cen-  
tral National Bank Bldg., St. Petersburg, has  
contract for cement and concrete work;  
Henry H. Dupont, Archt., St. Petersburg.  
(Late-

ly noted.)

Fla., West Palm Beach.—F. A. Gidden,  
Cleveland, O., let contract to Joseph Little,  
Miami, to erect residence; 2 stories; Italian  
style; cost \$7500; Wm. Cottrell, Supt. of  
Construction.

Ga., Americus.—C. A. Schneider let con-  
tract to W. W. McNeill, Americus, to erect  
1-story bungalow; stone front.

Ga., Atlanta.—W. G. Leas let contract to  
Adair & Weinmeister, Atlanta, to erect resi-  
dence; 2 stories; brick veneer; cost \$5500;  
excavation completed.

Ga., Augusta.—Dr. Asbury Hull let con-  
tract to Palmer-Spivey Construction Co., Au-  
gusta, to erect residence; cost \$10,000.

Ga., Augusta.—Dr. J. F. Burdshaw let  
contract to Silbert & Robinson, Augusta, to  
erect residence; cost \$6000.

Md., Baltimore.—J. Chas. Linthicum & Bro.  
let contract to Sweetser Linthicum, Jr., 217-  
19 St. Paul St., Baltimore, to erect 17 two-  
story dwellings at Rosedale Ter., Irvington.

N. C., Charlotte.—C. E. Lambeth let con-  
tract to J. P. Little, Jr., Charlotte, to erect  
residence; 2 stories; stone and frame; slate  
roof; wood and tile floors; Honeywell hot-  
water heat (concealed type); electric lights;  
cost \$20,000; Willard G. Rogers, Archt., Char-  
lotte; construction begun. (Late-

ly noted.)

N. C., High Point.—Miss Bessie M. Wood  
let contract to B. F. Montgomery, High  
Point, to erect residence; 8 rooms; cost  
\$4000.

N. C., Wilson.—S. D. Knott let contract to  
C. C. Rackley, Wilson, to erect \$3000 resi-  
dence.

N. C., Wilson.—S. W. Smith let contract to  
C. C. Rackley, Wilson, to erect \$16,000 resi-  
dence.

N. C., Wilson.—S. D. Parker let contract to  
Ernest Deans, 11 W. Nash St., Wilson, to  
erect residence; 32x60 ft.; 7 rooms frame;  
asphalt roof; hardwood and pine floors;  
electric wiring; cost \$3300; S. B. Moore,  
Archt., Wilson.

S. C., Great Falls.—Republic Cotton Mills  
let contract to Goldsmith Building Co. (H.  
R. Wilkins, V.-P., and J. S. Elmore, Supt.),  
Greenville, S. C., to erect 100 tenements; 1  
and 2 stories; electric lights, etc.; plans by  
J. E. Shirrine, mill architect and engineer,  
Greenville.

Tenn., Memphis.—Colonial Trust Co. let  
contract to J. B. and L. E. Moody, Memph's,  
to erect 7-room frame and stucco residence at  
1729 Herbert Ave.; also 1-story frame and  
stucco residences at 1851, 1857, 1861, 1867, 1871  
Manilla Ave.; cost \$14,350.

Tenn., Memphis.—Tony A. Canale let con-  
tract to B. W. Cocke, Faxon Ave., R. F. D.  
No. 6, Memphis, to erect residence; 22x54 ft.;  
2 stories; brick veneer; Rextile composition  
shingle roof; wood floors; cost \$8000; hot-air  
heat, \$300; Regan & Weller, Archts., Mem-  
phis.

Tex., Denton.—J. D. Hodges let contract to  
Geo. McCormick, Denton, to erect 2-story  
dwelling.

Tex., El Paso.—Dr. B. F. Stevens, Roberts-  
Banner Bldg., let contract to Geo. B. Busco,  
1005 N. Cotton St., El Paso, to erect resi-  
dence; 50x34 ft.; 2 stories; composition  
roof; hardwood floors; steam heat; cost  
\$10,000; electric lights, \$200; J. J. Wallwork,  
Archt., 202 Roberts-Banner Bldg., El Paso.

Tex., Fort Worth.—A. M. Luckett let con-  
tract to Tyte & Kenning, Fort Worth, to  
erect 2-story 5-room tile and stucco resi-  
dence; cost \$7500.

Va., Portsmouth.—Emma M. Brokaw has  
plans by and let contract to L. L. Reynolds,  
Portsmouth, to erect residence; 1 story;  
frame; slate roof; 31x54 ft.; double floors;  
cost \$3400; hot-air heat, \$200.

W. Va., Parkersburg.—H. O. McDade let  
contract to John N. King, Parkersburg, to  
erect residence; 8 rooms; brick; cost \$3500.

## HOSPITALS, SANITARIUMS, ETC.

Okla., Oklahoma City.—Oklahoma State  
Baptist Assn. let contract to J. W. Lucas,  
Oklahoma City, to erect hospital; 39x65 ft.;  
3 stories; reinforced concrete; gravel roof;  
hard-finish oak floors; cost \$18,000; steam  
heat, \$3000; electric lights with call system,  
\$800; electric elevator and dumb waiter,  
\$1500; Leonard Bailey, Archt., Oklahoma  
City. Address Dr. W. E. Dicken, 518-20 State  
Bank Bldg., Oklahoma City. (Late-

ly noted.)

## HOTELS

Fla., Tampa.—Cuesta, Rey & Co., care of  
Fort & Parslow, Tampa, let contract to erect  
addition to and alter building for hotel and  
store. (See Stores.)

Ga., Pearson.—Mrs. B. S. Guest has plans  
by and let contract to A. J. Huggins, Lyons,  
Ga., to erect hotel; 25 rooms; brick and con-  
crete; galvanized roofing; tile floors; cost  
\$10,000; Deleo lighting system and water,  
\$575. (Late-

ly noted.)

Okla., Chickasha.—McFarland Hotel Co.  
(Z. L. McFarland & Son) let contract to  
P. Clyn, Chickasha, for brick work on \$50,000  
hotel at 2d and Chickasha Ave.; 4 stories;  
brick; 75 rooms, 25 to have private baths;  
telephone, hot and cold water, steam heat,  
etc., in all rooms; elevator; vacuum-cleaning  
system; shower baths; construction under  
supervision of company; completion about  
Feb. 1, 1917. (Late-

ly noted.)

W. Va., Mullins.—Bank of Wyoming let  
contract for brick work on bank and hotel  
building. (See Bank and Office.)

## MISCELLANEOUS

Ala., Mobile.—Fair.—Gulf Coast Fair let  
contract to R. E. Brightman, Mobile, to erect  
livestock and poultry buildings; 50x100 ft.,  
50x80 ft. and 40x50 ft.; wood; composition  
roof; cost \$2300; Geo. B. Rogers, Archt., Van  
Antwerp Bldg., Mobile. (Late-

ly noted.)

Mo., St. Louis.—Paddock, etc.—A. C. Wurst,  
3d St. and Russell Ave., let contract to Robt.  
Paulus, 2205 Ann Ave., St. Louis, to erect  
horse barns and paddock; 95x103 ft.; brick,  
concrete and wood; composition gravel roof;  
wood block paving and concrete foundation  
floors; electric lights; granite and vitri-  
fied brick sidewalks; cost \$15,000; H. J.  
Burgdorf, Archt., 2004 Virginia Ave., St.  
Louis. Address contractor. (Late-

ly noted under Warehouses.)

## SCHOOLS

Fla., Military Park.—Kentucky Military  
Institute (permanent address, Lyndon, Ky.),  
C. W. Fowler, Supt., is reported to have let  
contract to erect 3-story dormitory. (Pre-  
viously noted to rebuild burned structure.)

Ga., Valdosta.—State let contract to W. E.  
Boothe, Valdosta, to erect building for South  
Georgia State Normal College; 1 story;  
brick; wood floors; tile roof; 27x67 ft.; 2  
rooms; will erect permanent structure later.  
(Late-

ly noted.)

La., Edgerly.—F. A. Hamilton, Parish  
Supt., Lake Charles, La., let contract to H.  
C. Collins, Lake Charles, to erect 1-story 4-  
room frame school; A. H. Humphrey, Archt.,  
Lake Charles. (Late-

ly noted.)

N. C., Hickory.—City let contract at \$19,279  
to C. A. Kline, Carthage, N. C., to erect  
graded school, including lighting and heat-  
ing; J. J. Baldwin, Archt., Anderson, S. C.  
(Late-

ly noted.)

Tex., Austin.—State let contract to Trin-  
ity Construction Co., Dallas, to erect oral-  
training school at State School for Deaf and  
Dumb; 60x174 ft.; 3 stories, with hospital  
wing; reinforced concrete frame; gravel  
roof; flat slab floor construction; cost \$59,  
492; let contract for heating and plumbing  
at \$6292 and \$7558, respectively, to Donnelly  
& White, Austin, and electrical work at \$1787  
to John L. Martin, Austin; Kuehne, Chasey  
& Giesecke, Archts., 811 Littlefield Bldg.,  
Austin. (Late-

ly noted.)

Tex., Barstow.—School Board let contract  
at \$15,400 to J. T. Laskins, Stanton, Tex., to  
erect school; brick and stone; metal ceil-  
ings; M. L. Waller, Archt., Fort Worth,  
Tex. (Previously noted.)

Tex., Beaumont.—City Secy. let contract  
at \$52,123.48 to McBride & Law, Beaumont,  
to erect school to replace Pollard School; 2

stories and basement; semi-fireproof; 20  
classrooms and auditorium; Barrett speci-  
fication roof; wood joist floors; low-pressure  
gravity heat; also let contract at \$5791 to  
C. C. Hartwell & Co., New Orleans, La., for  
plumbing, and at \$898 to Beaumont Electric  
Co., Beaumont, for electric wiring; San-  
guinet, Staats & Gottlieb, Archts., Fort  
Worth and Houston, Tex.; Emmett A.  
Fletcher, Mayor. (Late-

ly noted.)

Va., Berkeley Sta., Norfolk.—Washington  
Dist. School Board let contract to Seay  
Bros., Colonial Ave. and 24th St., Norfolk, to  
erect Compostella School; 39x90 ft.; brick;  
gravel roof; wood floors; cost \$11,000; hot-  
air heat, \$1500; J. W. Lee, Archt., Norfolk.  
(Late-

ly noted.)

W. Va., Guyandotte, Ind. Sta., Huntington.  
Cabell County Board of Education re-let  
contract to Robert O'Dell, Huntington, at  
\$46,525, exclusive of heating and plumbing,  
to erect school; 12 rooms; construction be-  
gins Nov. 1; Verus T. Ritter, Archt., First  
National Bank Bldg., Huntington. (Other  
contracts lately noted.)

## STORES

Ala., Bessemer.—Dr. J. C. Curry let con-  
tract to J. T. Crofford, Bessemer, to erect 2  
brick store buildings.

Ala., Mobile.—A. A. Lackland let contract  
to erect store and apartment building. (See  
Apartment-houses.)

D. C., Washington.—Mabel K. Linkins let  
contract to C. A. Barker, 611 Ouray Bldg.,  
Washington, to erect 3-story brick store;  
cost \$8000; Geo. T. Santmyers, Archt., 921 1/2  
New York Ave., N. W.

Fla., Sealee.—Thomas Oyama let con-  
tract to Jacob Espedahl, Daytona, Fla., to  
erect business building to contain 5 stores;  
1 story; copula rock and white brick; cost  
\$10,000.

Fla., Tampa.—Cuesta, Rey & Co., care of  
Fort & Parslow, let contract to J. H. De-  
wiler, Tampa, to erect addition to and alter  
building at Franklin and Tyler Sts. for  
store and hotel; ordinary construction; tar  
and gravel roof; wood and tile floors; gas  
heat; electric lights; cost \$5000; Fort &  
Parslow, Archts., Tampa, may be addressed.

Ga., Douglas.—S. M. Roberts let contract  
to R. N. McEachren, Douglas, to erect  
2-story building; 50x80 ft.; brick and frame;  
composition roof; concrete floors; electric  
lights; cost \$8000.

Ga., Tifton.—J. W. O'Neal and B. H. Mc-  
Leod let contract to erect store and office  
building. (See Bank and Office.)

Ga., Douglas.—J. F. Overstreet will re-  
model 2-story building; R. N. McEachren,  
Contr., Douglas.

La., New Orleans.—Mrs. Omer Villere let  
contract to Lionel F. Favret, 211 Camp St.,  
New Orleans, to erect store building; two  
stories; pressed brick and terra-cotta; fire-  
proof; concrete floors; cost \$13,000; Nolan  
& Torre, Archts., Hennen Bldg., New Or-  
leans. (Late-

ly noted.)

N. C., Asheville.—W. L. Curtis, Cashier Bank  
of Asheville, let contract to erect 1-story brick  
business building; 51 ft. frontage; comple-  
tion by December.

N. C., Wilmington.—C. W. Yates Co. let  
contract to J. G. Osterman, Wilmington, to  
alter store building lately noted; brick;  
composition roof; wood floors; steam heat;  
electric lights; freight elevator; cost \$50,000;  
J. F. Leitner, Archt., Wilmington. (See Ma-  
chinery Wanted—Elevator.)

N. C., Wilson.—Quinn McGowan Furniture  
Co. let contract to E. F. Killete & Co., Wil-  
son, to erect \$15,000 brick store building.

Tenn., Memphis.—Bayless G. Lee let con-  
tract to remodel brick building at 151 Mad-  
ison St.; will install new plate-glass front,  
etc.; G. M. Shaw & Co., Archts., Memphis.

Tenn., Memphis.—Goodwyn Institute let  
contract to erect addition to store and office  
building. (See Banks and Offices.)

Va., Norfolk.—N. B. Joynes let contract to  
erect business and office building. (See Banks  
and Offices.)

## WAREHOUSES

Ark., Clarksville.—A. M. McKennon & Co.  
will erect brick warehouse; contract let.

Tex., Houston.—Union Compress & Ware-  
house Co. will erect additions to cotton  
sheds and warehouse building; frame; 45,000  
sq. ft. floor space; cost \$35,000; completion  
in about 60 days; Central Contracting Co.,  
Contr., Houston.

Va., Norfolk.—Southgate Terminal Corp.  
let contract at \$52,945, exclusive of piling,  
steel sash and metal doors, to R. R. Rich-  
ardson &

## MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

### "WANTS"

**Air Compressor.**—See Crushing (Rock) Machinery.—Staunton Lime Products Co.

**Air Compressor.**—White Furniture Co., Mebane, N. C.—Air compressor.

**Armor (Naval Vessels).**—Navy Dept., Bureau of Ordnance, J. Strauss, Chief, Washington, D. C.—Bids until Nov. 1 to furnish 45,583 tons (more or less) of armor for naval vessels; information, forms, etc., obtainable.

**Barrel Heading Machinery.**—J. H. Black & Co., Barboursville, Ky.—Prices on machinery for manufacturing slack barrel heading.

**Barrels (Oil).**—See Tanks and Barrels (Oil).—John Brown.

**Belting.**—Casey & Michenl, Harrisonville, O.—Cotton and rubber belting.

**Blackboards.**—Polk County Board of Education, Benton, Tenn.—Bids until Oct. 30 for slate blackboards for grammar school; plans and specifications at office Board and W. H. Sears, Archt., Chattanooga, Tenn.

**Blue-printing Machines.**—W. Elliott Dunwoody, Jr., 612 Grand Bldg., Macon, Ga.—Wants information and prices on electric blue-printing machines.

**Boiler.**—Newbern Coca-Cola Bottling Works, C. A. Seifert, Mgr., Middle St., Newbern, N. C.—20 or 30 H. P. boiler.

**Boilers.**—See Electrical Supplies, etc.—Smith County Electric Co.

**Boiler (Steam).**—See Syrup-making (Root Beer) Machinery.—Pocahontas Root Beer Co.

**Boring Machines, etc.**—"Boring Mill," care Manufacturers Record, Baltimore, Md.—12-ft. vertical boring mill; 4-ft. vertical boring mill; 4 or 5-ft. horizontal boring machine; 5 or 7½-ton electric crane, about 50-ft. span.

**Bridge Approaches.**—Tulsa County Comms., Tulsa, Okla.—Bids until Nov. 6 to construct approaches to Arkansas River Bridge No. 150; plans, specifications, etc., may be seen at office of County Engr., Tulsa.

**Bridges (Concrete).**—See Road Construction.—Volusia County, Maynard M. Bond, Chrmn., De Land, Fla.

**Bridge Construction.**—Hardin County Comms., Kountze, Tex.—Bids until Oct. 23 to construct concrete and steel culverts on 23 mi. of road; plans and specifications on file with County Clerk and with Myers & Noyes, Conslt. Engrs., Juanita Bldg., Dallas; W. W. Dies, County Judge.

**Bridge Construction.**—Russell County Comms., Seale, Ala.—Bids until Nov. 15 to construct bridge over Brush Creek on Tuskegee and Columbus Rds.; bids on steel bridge with concrete piers and floor and on reinforced concrete; plans on file with W. S. Keller, State Highway Engr., Montgomery, Ala., on or before Nov. 8.

**Bridge Construction.**—Holmes County Comms., R. C. Ellmore, Secy., Lexington, Miss.—Bids until Oct. 26 for materials and construction; about 1500 lin. ft. ballast deck cross-tied timber highway bridges; plans and specifications on file office of Chancery Clerk, Lexington; Engrs., Snowden & Hauser, Jackson and Columbus, Miss.

**Buckets and Cans.**—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish 5000 galvanized iron or steel buckets and 10,000 1-gal. tin paint cans, schedule 273, delivery Mare Island.

**Building Materials, etc.**—See Heating Plants, etc.—R. Bailly.

**Building Materials.**—Dr. J. F. Woodward, Newport, Tenn.—Prices on building materials for residence.

**Butter Machinery, etc.**—Kuri Primos Lucs, 2a Flamencos 15, Mexico City.—Catalogues, prices, etc., of farmers' machines, especially those to make butter; incubators; bottles with caps for distribution of milk.

**Cans (Galvanized Iron).**—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish 300 30-in. high 25-in. diam. galvanized iron cans, schedule 277, delivery Washington.

**Cars.**—Jewel Supply & Equipment Co., Baltimore, Md.—Six V-shaped dump cars, 36-in. gauge; 1 or 1½ yd. capacity.

**Chains.**—Rowan County Freestone Co., Farmers, Ky.—RBB or Dredge ¾-in. round link chain.

**Chemicals.**—Keeling & Walker, 35 Surrey St., Strand, London, W. C., England.—To represent manufacturers of heavy chemicals and raw materials manufactured in the United States, such as oxides of zinc, soda ash 58 degrees, light carbonate of magnesia, etc.

**Concrete Bricks.**—National Homebuilders' Corporation, Moore Bldg., Richmond, Va.—Addresses of manufacturers of first-class concrete bricks.

**Concrete Sprayers.**—National Homebuilders' Corporation, Moore Bldg., Richmond, Va.—To purchase or lease concrete guns for blowing stucco on houses.

**Concrete Brick Machinery.**—National Homebuilders' Corporation, Moore Bldg., Richmond, Va.—Addresses of manufacturers of concrete brick machinery.

**Cooperage Machinery.**—See Mixers, Pumps, Tanks, etc.—Oklahoma Refining Co.

**Corn Mill.**—Casey & Michenl, Harrisonville, O.—Second-hand 20 or 22-in. vertical French burr mill; corn and cob crushers, capacity 20 to 30 bus.

**Corn Sheller.**—Dawson Variety Works, Dawson, Ga.—Power corn sheller; send prints, prices and weights with freight rate; with elevators and sacker and one that will take corn in shuck and shell it.

**Cotton Goods, Hats, etc.**—Jos. Sylvain & Co., Port-au-Prince, Haiti.—To represent manufacturers of American goods, especially cotton goods, dress material, straw hats, felt hats, haberdashery lines, hardware.

**Cotton Machinery.**—Empresa de Hilados, Gabriel A. Pinedo, Mgr., Barranquilla, Colombia, S. A.—Writes to Manufacturers Record: "Intend to mount plant with daily capacity 2000 lbs. yarn; wish proposals for machinery installed and running; erect buildings according to plans and specifications by firm selling machinery; all this at our expense; a part of the value of machinery to be paid on placing order and the balance when machinery is fully mounted and running; to pay engineer to make installation; certified letter of credit for balance of value of machinery, which is to be paid when fully mounted."

**Crane (Locomotive), etc.**—C. G. C., care Manufacturers Record, Baltimore, Md.—15 to 25-ton locomotive crane; 85 to 100-ft. boom dragline machine; 75 to 100 H. P. Diesel engine, separate or connected to generator.

**Crane (Electric).**—See Boring Machines, etc.—"Boring Mill," care Manufacturers Record, Baltimore, Md.

**Crushing (Rock) Machinery, etc.**—Staunton Lime Products Co., N. C. Taylor, Mgr., Staunton, Va.—Prices on gyratory crusher, daily capacity 150 to 200 tons (mainly for crushing rock to 5 or 6-in. size; air compressor, to operate 2 drills; jack hammer drill; rock cars, etc.

**Dam Construction.**—Little River Mfg. Co., J. B. Mason, Prest., Citizens' National Bank Bldg., Durham, N. C.—Bids until Oct. 21 to reconstruct dam; plans and specifications obtainable from Mr. Mason.

**Dragline Machine.**—See Crane (Locomotive), etc.—C. G. C., care Manufacturers Record.

**Drainage.**—McLean County Drainage Comms., S. B. Robertson, Secy., Calhoun, Ky.—Will let contract Oct. 23 to construct ditch and arms, about 76,149 cu. yds. earth removal; work is to be let separately, then arms and laterals to be let with main ditch as a whole, and the best bid received to be accepted.

**Drainage System.**—Baldwin County Drainage Dist. of Duval County, J. G. Boyd, Prest., Consolidated Bldg., Jacksonville, Fla.—Bids until Nov. 15 to construct 1,750,000 cu. yds. open ditch and concrete spillways; plans and specifications obtainable for \$5 from Isham, Randolph & Co., Ch. Engrs., Heard National Bank Bldg., Jacksonville, Fla.

**Druggists' Supplies.**—Jose M. de la Torre, 15 O'Reilly St., Havana, Cuba.—Interested with view to exclusive agencies for Cuba in following: Druggists' glassware; pill, powder and talcum powder boxes; tin boxes for powders; pills, salves, etc.; druggists' labels.

**Dredging.**—U. S. Engr. Office, Norfolk, Va.—Bids until Nov. 14 for dredging in Inland Waterway from Norfolk to Beaufort Inlet, N. C.; information on application.

**Drill (Hammer).**—See Crushing (Rock) Machinery.—Staunton Lime Products Co.

**Earthwork.**—U. S. Engr. Office, Queen and Crescent Bldg., New Orleans, La.—Bids until Nov. 3 to construct 498,000 cu. yds. earthwork in Lafourche Basin Dist.; information on application.

**Electric Generator.**—H. H. Hill, care A. J. Posey, Cloudercroft, N. M.—Electric generator, 4 to 8 K. W., to light home and barn.

**Electric Generator.**—Modern Laundry Co., Milledgeville, Ga.—Second-hand electric generator; direct or alternating current; 10 or 15 K. W.; first-class condition and complete with switch-volt and ampere meters.

**Electric-light System.**—See Waterworks and Electric-light Plant, Miami, Tex.

**Electric-light Equipment.**—Lula (Miss.) Light & Water Co., C. S. Swann, Box 275, Clarksdale, Miss., Purchasing Agent and Engr.—Will purchase material and machinery for following: Oil engine, 30 H. P.; 25 K. V. A. 2200-volt 60-cycle generator, switchboard, etc.; equipment for wiring city for multiple street lights and residence lighting.

**Electric Motor.**—See Grist Mill, etc.—H. B. Wordehoff.

**Electric Motors.**—Goldsboro Milling & Grain Storage Co., Goldsboro, N. C.—New or used 50, 20 and 10 H. P. electric motors.

**Electric Motors.**—See Engines (Oil), etc.—Seguin Round Bale Gin Co.

**Electrical Machinery, etc.**—Newbern Coca-Cola Bottling Works, C. A. Seifert, Mgr., Middle St., Newbern, N. C.—Prices on 20 or 30 H. P. boiler; electric elevator; 10 H. P. 3-phase 60-cycle electric motor; office equipment; iron safe, etc.

**Electrical Machinery, etc.**—Hackley Morrison, Richmond, Va.—Dealers' prices on five 20-ft. lengths 2 7-16 shafting; eight 2 15-16 hangers, 16 or 18-in. drop; nine 2 7-16 in. post hangers; six 15-16 in. set collars; monorail electric hoist and trolley, 250-volt, direct current, for 8 or 9-in. I beam, 2-ton capacity, 250 ft. per minute speed, lifting speed 10 to 20 ft. per minute; two cleat nail machines, Doig or Morgan make; 20 H. P. electric hoisting engine, double drum, also a derrick for same or good locomotive crane; 2-in. bolt cutter with dies and tape complete; two milling machines; American or Smith double tenoner; three 15 H. P. 250-volt 1100 R. P. M. direct current motors with bases, pulleys and starters, with full commutators, and quotation should state original thickness of commutators and present thickness; 35 K. W. 250-volt direct current belted generator; 250-volt direct current generator, direct connected to a Harrisburg or similar automatic slide crank oil bath engine.

**Electrical Machinery.**—Union Central Light & Power Co., Hubbard, Tex.—Northern and Western cedar poles, 30 to 40 ft. long, 7 to 8-in. top butts, cross-tied, in car lots delivered at Hubbard; 30,000 ft. No. 10 W. P. insulated copper wire, f. o. b. point of shipments; switchboards; oil switches; automatic electric cut-in and cut-out high and low-water alarm; signal devices; volt and ampere meters; switchboard devices and equipment.

**Electrical Machinery.**—See Textile Machinery.—Richard Donohoe.

**Electrical Supplies, etc.**—Smith County Electric Co., T. B. Read, Secy.-Treas., Carthage, Tenn.—Prices on electrical supplies, boilers, engines, generators, etc.

**Elevator.**—J. G. Osterman, Wilmington, N. C.—Prices on freight elevator.

**Elevators.**—Treasury Dept., Supervising Archt.'s Office, Washington, D. C.—Bids opened Nov. 15 for installation, complete, of electric passenger elevator in each of the following buildings: U. S. postoffice, Elkins, W. Va.; U. S. postoffice and custom-house at Newport, R. I., and U. S. postoffice and courthouse at Tuscaloosa, Ala.; copies of drawings and specifications obtainable at discretion.

**Elevator (Electric).**—See Electrical Machinery, etc.—Newbern Coca-Cola Bottling Works.

**Engines.**—See Electrical Supplies, etc.—Smith County Electric Co.

**Engines (Diesel).**—See Crane (Locomotive), etc.—C. G. C., care Manufacturers Record.

**Engine (Oil), etc.**—Seguin Round Bale Gin Co., C. I. Cook, Mgr., Seguin, Tex.—Prices on 150 H. P. oil engine and 30 H. P. motor.

**Engineering Supplies.**—Blair, Reed & Co., Engrs. and machinery dealers, Nathan's Bldgs., Wellington, New Zealand.—To represent manufacturers of engineering supplies.

**Feed-water Heater.**—Chas. T. Lehman, Birmingham, Ala.—1500 H. P. second-hand closed type feed-water heater; prefer one good for 200 lbs. steam pressure; copper tubes, not less than 6-in. water opening and 8-in. steam opening.

**Furniture (Porch).**—See Statuary, etc.—H. E. Graves.

**Glassware.**—See Druggists' Supplies.—Jose M. de la Torre.

**Gasoline Extracting Machinery.**—J. A. McLeay, 823 Candler Bldg., Atlanta, Ga.—Data on extraction of gasoline from natural gas, and prices on machinery.

**Gates (Metal).**—See Statuary, etc.—H. E. Graves.

**Gloves.**—New York & Hagerstown Metal Stamping Co., Hagerstown, Md.—Addresses of manufacturers of workmen's canvas gloves.

**Grist Mill, etc.**—H. B. Wordehoff, Plant City, Fla.—To purchase grist mill, rice mill, fan, shaft, belting, corn sheller, velvet bean huller, electric motor, etc.

**Hammer (Steam).**—See Hoisting Engine, etc.—Bureau Supplies and Accounts.

**Hardware.**—Blair, Reed & Co., Engrs. and machinery dealers, Nathan's Bldgs., Wellington, New Zealand.—To represent manufacturers of hardware.

**Hardware.**—See Cotton Goods, etc.—Jos. Sylvain & Co.

**Heating.**—Bonfoey & Elliott, Tampa, Fla.—Prices on steam-heating plant for 200-room hotel.

**Heating Plants, etc.**—R. Bailly, 6 Rue Malhurin Regnla, Paris, France.—Interested, with view to representation, in "Heating apparatus, construction of buildings and manufactures."

**Heating Plant.**—F. P. Powers, Wallace, N. C.—Data and prices on hot-air heating plant for church.

**Heating System, etc.**—White Furniture Co., Mebane, N. C.—Heating system and vacuum steam system for factory.

**Heating System.**—Baltimore (Md.) Board of Awards, City Hall.—Bids until Oct. 25 for heating system for engine-house No. 4, Lexington St. near Guilford Ave.; drawings and specifications on file with J. J. Byrne, Building Inspector.

**Heating and Plumbing.**—Polk County Board of Education, Benton, Tenn.—Bids until Oct. 30 on heating and plumbing for grammar school under construction; plans and specifications at office Board and W. H. Sears, Archt., Chattanooga, Tenn.

**Hoisting Equipment.**—W. H. Spooner, Tifton, Ga.—Prices on small hoisting outfit, gasoline or electric power.

**Hoisting Engine, etc.**—Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until Oct. 31 for delivering steam hoisting engine and steam hammer at naval station, New Orleans. Apply for proposals to supply officer, naval station, New Orleans, or to Bureau.

**Ice Plant.**—E. Smith, Box 289, Altavista, Va.—To correspond with manufacturers of ice plant machinery.

**Lathe.**—John Schofield, Littleton, N. C.—Second-hand iron lathe with tools and fixtures for general work.

**Leather, Woolen and Cotton Goods.**—Hosley, etc.—Amerigo Ferri, 183 Casilla Gerreo, Quito, Ecuador.—Interested with view to representation in wall paper, shoe leather, woolen and cotton goods, hosiery (cotton), boots for babies, hardware, drugs (pharmaceutical), etc.

**Levee Construction.**—Levee Comms. Yazoo-Mississippi Delta, T. G. Dabney, Ch. Engr., Clarksdale, Miss.—Bids until Oct. 23 to construct all remaining enlargement work on levee, beginning with section 2, 2½ mi. below Friar Point, and extending to lower end of district, except sections completed; 3,000,000 cu. yds.; for further information address Chief Engr.

**Levee Construction.**—Comms. Hidalgo County Drainage Dist. No. 1, Geo. B. Meriwether, Chrmn., Donna, Tex.—Bids until Oct. 30 to construct following sections of protection levee: Section No. 1, total length 17,900 ft., clearing and grubbing 124 acres and 106,000 cu. yds. earthwork; Section No. 2, twin levee, total length 13,500 ft., clearing and grubbing 317 acres and 128,000 cu. yds. earthwork; Section No. 3, total length 61,000 ft., clearing and grubbing 214 acres and



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22,000 cu. yds. earthwork; for further information address Mr. Meriwether or C. S. Clark, Engr. of Dist., Donna.

**Lowerers, Lifters, etc. (Pipe).**—Dunn Machinery Co., 522 S. Pryor St., Atlanta, Ga.—Prices on following new or good condition second-hand equipment for lowering and lifting out 500 ft. 6-in. W. I. pipe in 8-in. well: Crab for hand-power, arranged to be converted into belt power; cable; pr. pipe elevators, complete with hinge, fastener and links; 2 chain tongs; derrick hook with double swivel for picking up pipe from floor, etc.; also following well tools: Pole catcher (Cook's preferred), with 4 rings for fishing broken 2½-in. wood sucker rods from wells; 2 crucible steel wrenches, wide and long, for handling 2½-in. wood rods; crucible steel swivel for lifting 500 ft. 2½-in. wood rod, coupled.

**Lumber (Pine).**—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish 100,000 ft. 2-in. select white pine, schedule 250, delivery Washington.

**Machinery, Machine Tools, etc.**—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish following: 25-in. swing, upright drill; universal cutter and tool grinder; 2 14-in. and 24-in. screw-cutting engine lathes; 8-in. bench-type precision lathe; universal milling machine; screw machine; schedule 288, delivery Keyport, Wash.; electrical equipments (elevating gear, rammer, shell hoist, etc.), schedule 286, delivery Brooklyn, Mare Island; 1-in. vertical thread-rolling machine, schedule 262, delivery Mare Island; deep drawing toggle press, schedule 280, delivery Norfolk; 2-in. suction centrifugal pump, schedule 277, and 2-ton battery crane truck, schedule 258, delivery Washington.

**Machine Tools, etc.**—Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until Oct. 31 for delivering white ash, cotton canvas, jib cranes, rubber ferules, hardware, lignum-vitae, lathe, grinder, cutting-off and threading machines, bending press, Venetian red and sponges at Navy-yard, Norfolk. Apply for proposals to supply officer, Navy-yard, Norfolk, or to Bureau.

**Manufactures (General).**—See Heating Plants, etc.—R. Bailly.

**Metal Roof Repairing Material.**—Williams & McKelhan Lumber Co., Roseboro, N. C.—Data and prices on preparation for repairing metal roofing (filling old nail holes, etc.).

**Metals.**—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish following: Schedule 275, 2500 lbs. 4-in. bar, rolled naval brass, and 600 lbs. bar rolled monel metal, delivery Mare Island; 40,000 lbs. tube sheet brass and 4465 lbs. boiler plate steel, schedule 261; 3500 lbs. medium strip brass, schedule 268, and 21,000 lbs. soft-rolled sheet copper, schedule 279, delivery Brooklyn; 1500 lbs. phosphor bronze and 9900 lbs. carbon steel, schedule 259; 42,000 lbs. common steel plates, schedule 264, and 144,500 lbs. black and bright sheet steel, schedule 277, delivery Washington; 4000 lbs. hard sheathing copper, schedule 269, and iron for chain cables, schedule 278, delivery Boston; 1600 lbs. shot form 98-99 per cent. pure nickel, schedule 271, delivery Philadelphia; steel propeller shafts, schedule 287, delivery Brooklyn, Mare Island.

**Mixers, Pumps, Tanks, etc.**—Oklahoma Refining Co., Kee R. McKee, Mgr., 908 Herskowitz Bldg., Oklahoma City.—To open bids Dec. 10 on mixers, pumps, tanks, cooper's machines and supplies.

**Office Equipment.**—See Electrical Machinery, etc.—Newbern Coca-Cola Bottling Works.

**Oil Refining Equipment.**—"Geologist," care of 4007 Southern Trust Bldg., Little Rock, Ark.—Addresses of contractors for oil refinery equipment; proposes 500-bbl. daily installation in Oklahoma.

**Paper (Wall).**—See Leather, Woolen and Cotton Goods, Hosiery, etc.—Amerigo Ferri.

**Paving.**—See Water-works, Sewers and Paving.—City of St. Cloud, Fla.

**Paving, etc.**—Chas. E. Bolling, City Engr., City Hall, Richmond, Va.—Bids until Oct. 20 to gravel and roll 43d St. and Reedy Ave.; also grade and pave certain alleys; proposal forms on application.

**Paving, etc.**—City Comms., Huntington, W. Va.—Bids until Oct. 23 to grade, curb and pave section on 11th St. and various alleys; also to construct various sewers; plans and specifications on file with A. B. Maupin, City Engr.; O. H. Wells, Commr. of Streets, etc.

**Paving.**—City of Whitesburg, Ky.—To let contract Nov. 11 for street improvements. Address The Mayor.

**Paving.**—Baltimore (Md.) Board of Awards, City Hall.—Bids until Oct. 25 to pave various alleys with cement-concrete; specifications and blank proposal sheets furnished on application to R. M. Cooksey, Highways Engr.

**Paving.**—Comms. Dist. of Columbia, Washington, D. C.—Bids until Oct. 24 to grade streets aggregating 107,000 cu. yds.; proposal forms, specifications and information from Chief Clerk, Engr. Dept., 427 Dist. Bldg.

**Peanut Roasting Machines.**—See Popcorn Machines, etc.—John G. Duncan Co.

**Pictures.**—Crescent Drug Store, Titusville, Fla.—Framed pictures, mirrors, etc.

**Pins (Dowel, Brass).**—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish 7000 brass dowel pins, schedule 259, delivery Washington.

**Pipe.**—Ragby Land Corp., 401 First National Bank Bldg., Roanoke, Va.—Prices on 4 and 6-in. cast-iron pipe and ½, ¾, 1 and 3-in. galvanized wrought-iron pipe.

**Pipe, Tubing and Fittings.**—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish following: 300 brass bibb cocks and 294 low-pressure steam and water valves, schedule 276, delivery Mare Island; 400 brass 3-way stop cocks and 100 1-in. brass relief valves, schedule 259, delivery Washington; steam and water pipe fittings, schedules 274 and 276, delivery Mare Island; copper pipe, schedules 261 and 279, delivery Brooklyn; 45,970 lbs. admiralty metal condenser tubes, schedules 261 and 263, delivery Boston, Puget Sound; composition condenser tubes, schedule 261, and valves for air spray system, schedule 279, delivery Brooklyn; 40 ¾-in. pressure reducing valves, schedule 271, delivery Philadelphia; 4390 lbs. brass sheet condenser tubes, schedule 261, delivery Boston.

**Plates (Rapping).**—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish 6500 rapping plates for patterns, schedule 259, delivery Washington.

**Popcorn Machines, etc.**—John G. Duncan Co., 306 W. Jackson Ave., Knoxville, Tenn.—Dealers' prices on popcorn and peanut roaster machine.

**Pottery Machinery.**—Keeling & Walker, 35 Surrey St., Strand, London, W. C., England.—To represent manufacturers of pottery machinery.

**Pulverizers.**—Culver & Ferguson, 710 Royal Liver Bldg., Liverpool, England.—Data, prices, etc., on pulverizing and grinding machinery; to reduce 200 mesh pure flint or silica.

**Pump.**—J. D. Kennedy, Columbus, Miss.—Centrifugal pump with 4-in. suction and 4-in. discharge; belt driven; good second-hand condition.

**Rails.**—Gooney Manor Copper Co., Front Royal, Va.—25 tons 67 or 70-lb. good relaying rails.

**Rails.**—Staunton Lime Products Co., N. C. Taylor, Mgr., Staunton, Va.—500 ft. Industrial rails.

**Refrigeration Equipment.**—Pennsylvania Equipment Co., Philadelphia, Pa.—Catalogs of electric driven refrigeration equipment for household refrigerators.

**Road Construction.**—Grenada County Supvrs., Grenada, Miss.—Bids at office of M. E. Powell, Chancery Clerk and ex-officio Clerk Board Supvrs., until Nov. 6 to construct about 85 ml. sand-clay roads.

**Road Construction.**—Knox County Fiscal Court, R. P. Black, Clerk, Barbourville, Ky.—Bids until Oct. 28 to grade road from Bailey's Switch, Ky., to Corbin, 15 ml.; also to construct 2 ml. macadam road at Flat Lick.

**Road Construction.**—Hardin County Comms. and Highway Committee, Kountze, Tex.—Bids until Oct. 23 to clear, grub and grade 11 ml. of road from Honey Island to Votaw; bids on sections 2 ml. long; plans and specifications on file with County Clerk at Kountze and with Myers & Noyes, Consit. Engrs., Juanita Bldg., Dallas; W. W. Dies, County Judge.

**Road Construction.**—Bibb County Commissioners, Centerville, Ala.—Bids until Nov. 18 to grade, drain and surface with gravel part of Centerville and Randolph Rd.; expenditure \$500; profile, plans and specifications on file with W. S. Keller, State Highway Engr., Montgomery, and Probate Judge at Centerville.

**Road Construction.**—Volusia County Comms., Maynard M. Bond, Chrmn., De Land, Fla.—Bids until Nov. 6 on road construction, Halifax Special Road and Bridge Dist.: Section 2-A and Section 2-B; 47,529 lin. ft. roadway, 9 ml.; 3000 cu. yds. excavation; 7158 cu. yds. Class A concrete; \$6,040

lin. ft. curb; 47,529 sq. yds. surfacing; 31,600 sq. yds. shoulders; 15,230 cu. yds. concrete, Class A and 9600 cu. yds. Class B concrete (bridges and culverts); 12,936 lbs. steel, placed; 530 lin. ft. piles, placed; 2123 M ft. bridge timber placed; 180 lin. ft. 12-in., 30 ft. 15-in., 130 ft. 18-in. and 10 ft. 36-in. pipe culverts; plans and specifications may be seen office of Samuel D. Jordan, County Clerk, De Land; office of J. D. Mailey, Daytona, Fla., and office of J. B. McCrary Co., Engr., 1408 Third National Bank Bldg., Atlanta, Ga.; copies of specifications obtainable.

**Road Tractor.**—Duval County Comms., Frank Brown, Clerk, Jacksonville, Fla.—Bids until Oct. 20 to furnish 45 H. P. road tractor, caterpillar type.

**Sawmill.**—See Woodworking Machinery, D. D. Webster.

**Screws.**—Navy Dept., Bureau Supplies and Accounts, Washington, D. C.—Bids to furnish 1200 steel cap screws, schedule 259, delivery Washington; also 135 gross brass wood screws, schedule 273, delivery Mare Island.

**Sewage-Disposal Plant.**—City of Memphis, Tex., W. M. Fore, Mayor.—Bids for alteration and additions to sewage-disposal plant; plans and specifications on file with Mayor and Henry E. Elrod, Consit. Engr., 505 Interurban Bldg., Dallas, Tex.

**Sewer Construction and Disposal Plant.**—See Water-works, Sewers and Paving.—City of St. Cloud, Fla.

**Sewer Construction.**—City of St. Louis, Mo., Room 315, New City Hall.—Bids until Oct. 31 to construct sewers in Glaise Creek Sewer Dist. No. 12 and in Arloe Joint Sewer Dist.; plans, specifications, form of contract and other information obtainable from office of Prest, Room 325, New City Hall.

**Sewer Construction.**—See Paving, etc. Huntington, W. Va.

**Shingle Machine.**—W. L. Garren, Culberson, N. C., R. No. 2.—Shingle machine to cut shingles by horizontal knife working in vertical frame; machine operated by lever with hand-power.

**Shovel (Steam).**—Easton Machinery Co., Drake Bldg., Easton, Pa.—1¼ to 1½ S. G. steam shovel; first class.

**Shovels, etc.**—Bureau Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until Oct. 31 for delivering white ash, cypress, and scoop shovels at Navy-yard, Charleston, S. C. Apply for proposals to supply officer, Navy-yard, Charleston, or to Bureau.

**Slate.**—H. T. Kelly or E. C. Campbell, Taylorville, N. C.—40 squares slate.

**Soap Machinery.**—A. L. Schwartzberg, 627 Texas St., Shreveport, La.—To correspond with makers of soap manufacturing machinery.

**Spun Metal.**—Lonaconing Glass Co., Lonaconing, Md.—Addresses of manufacturers of spun metal, such as nickel and silver.

**Statuary, etc.**—H. E. Graves, Bristol, Va.—Addresses of foundries which cast animal statuary and porch furniture, gates, lamps, etc.

**Steam (Vacuum) System.**—See Heating System, etc.—White Furniture Co.

**Steel, Pipe, Boiler Tubes, etc.**—Panama Canal, Earl I. Brown, General Purchasing Officer, Washington, D. C.—Bids until Nov. 2 to furnish steel, drawbar pockets, steel or iron pipe, boiler tubes, steel cable, chain, screws, nuts, cotters, staples, tacks, toe calks, zinc, hammers, wrenches, chisels, hatchets, axes, adzes, mattocks, saws, scythe blades, files, bits, drills, reamers, taps, stocks and dies, drill sockets, pipe cutters, bolt cutters, planes, pilers, vises, jacks, squares, screw clamps, hose clamps, hose nozzles, grommets, bolts, hinges, chain blocks, snatch blocks, tackle blocks, coke forks, hoes, trowels, cylinder boring bars, tool grinders, battery charging panel, generator panel, shelf brackets, elbow catches, drawer pulls, funnels, refrigerator, scales, table casters, spoons, vinegar bottles, welding spectacles, asbestos gloves, rubber hose, railroad flags, rules, steel tapes, etc.; blanks, etc., relating to circular (No. 1091) obtainable from this office or offices of assistant purchasing agents, 24 State St., New York; 614 Whitney-Central Bldg., New Orleans, and Fort Mason, San Francisco; also from United States Engineers' offices in Seattle, Los Angeles, Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, Chicago, St. Louis, Detroit, Milwaukee, St. Paul, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill., and Commercial Club, Tacoma, Wash.

**Structural Steel, etc.**—Panama Canal, Earl I. Brown, General Purchasing Officer, Washington, D. C.—Bids until Oct. 27 to

furnish structural steel, anchor bolts, saws, asbestos gaskets, roofing felt, roofing cement, refrigerator doors, hardware and millwork; blanks, etc., relating to circular (No. 1092) obtainable from this office or offices of assistant purchasing agents, 24 State St., New York; 614 Whitney-Central Bldg., New Orleans, and Fort Mason, San Francisco; also from United States Engineers' offices in Seattle, Los Angeles, Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, Chicago, St. Louis, Detroit, Milwaukee, St. Paul, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill., and Commercial Club, Tacoma, Wash.

**Syrup-making (Root Beer) Machinery.**—Pochontas Root Beer Co., 322½ S. 19th St., Birmingham, Ala.—Prices on small steam boiler (upright, for coal or coke fuel preferred); press for extracting oils and juices from boiling fruits by power; syrup filtering plants; gauges for tanks, etc.; stone jugs, glass jars, etc.

**Tanks.**—See Mixers, Pumps, Tanks, etc.—Oklahoma Refining Co.

**Tanks and Barrels (Oil).**—John Brown, Grandfield, Okla.—Prices on steel oil tanks and oil barrels.

**Tent (Canvas).**—W. L. Stubbs, Greenville, N. C.—24x36-ft. canvas tent; second-hand will do.

**Textile Machinery.**—Richard Donohoe, Hotel McAlpin, New York (representing Steppuhn Bros., Baku, Russia).—Data, plans and prices on complete equipment spinning and finishing machines and looms; manufacture camel hair press cloth and belting; estimated production, 10,000 pounds (180 tons) press cloth per yr. of 13-in. to 15-in. width; belting machinery to be specified separately; for belting, contemplate using 2 looms for 6 to 8-in. widths, 7 looms for 9 to 12-in. widths, 2 looms for 14 to 16-in. widths—total of 11 looms; also wants data on power transmission for practical erection of plant.

**Tooth-pick Machinery.**—R. I. Fundoburk, La Pine, Ala.—Addresses of manufacturers of tooth-pick machinery.

**Viaduct Construction.**—City Comms., Fort Worth, Tex.—Bids until Oct. 21 to construct reinforced concrete viaduct and approaches on Allen Ave.; total length 964 ft.; bids received on structure complete and separate bids on respective portions across right-of-ways of H. & T. C. and H. C. & S. F. Rys. and city's share; plans and specifications from F. J. Von Zuben, City Engr., for \$10; R. G. Littlejohn, Street Commr.

**Water-wheels.**—H. H. Hill, care A. J. Posey, Clouderoft, N. M.—Addresses of manufacturers of water-power wheels.

**Water-works and Electric-light Plant.**—City of Miami, Tex., Roy Trowbridge, Mayor.—Bids until Oct. 25 for water-works system and electric-light plant as follows: Complete water-works distribution system; motor-driven well-pumping machinery; material for electric-light distribution system; reinforced concrete reservoir; two 50 H. P. crude oil engines, direct connection; 3½ K. W. A. C. generator with direct-connected exciter; alternate, same as above with generator, belted with direct exciter; also with both generator and exciter belted; plans and specifications obtainable for \$10 from Henry E. Elrod, Engr., 505 Interurban Bldg., Dallas.

**Water-works, Sewers and Paving.**—City of St. Cloud, Fla., Fred B. Kenney, Clerk.—To open bids Dec. 1 on water-works, sewerage, sewage-disposal plant and street paving; power plant—2 each, boilers; engines, generators, motors, pumps, water purifiers, feed-water heaters and switchboard, transformers, meters, hydrants, valves, fuel oil plant, tower and storage tank, reservoir, pipe and fittings, crane and track, etc.; sanitary sewers and sewage-disposal systems (about 11,000 yds.); street paving with Georgia granite, curbing, asphalt-macadam, brick, cement-concrete, sand-asphalt, asphalt-concrete, with other specifications received, on file for bidders before Oct. 28; further information obtainable from Wilbur A. Ginn, Engr., St. Cloud.

**Wire Goods Manufacturers.**—Clovis Wilson, Bailey, N. C.—Correspondence with manufacturers of wire articles (small and medium.)

**Wire Rope.**—Easton Machinery Co., Drake Bldg., Easton, Pa.—½ and ¾ cast-steel wire ropes; 1000 ft. and longer lengths.

**Woodenware.**—Clovis Wilson, Bailey, N. C.—Correspondence with manufacturers of woodenware (large and small articles.)

**Woodworking Machinery.**—D. D. Webster, Fort Payne, Ala.—Second-hand planer and double surfacer; also second-hand sawmill.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

## INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

### Secures Tiling Contract.

Gen. Anson Mills awarded contract to L. W. Hoffecker, manufacturer of millwork, roofing, floor and wall tile, 413 Mills street, El Paso, Texas, for the laying of about 10,000 feet of tile in his office building.

### Concrete Floors for Macon Terminal.

Attention is called by The Master Builders Company of Cleveland, O., to the fact that Master Builders red concrete floors have been installed in the concourses, passenger subways and office corridors of the new terminal station at Macon, Ga.

### Pump Rights for Sale.

A. L. Ligon, Ft. Stockton, Tex., offers to sell the royalty rights or his entire interest in an improved oil and water pump for deep wells. He states the pump is proving a machine of real merit, and would prefer to have the pumps manufactured in the South.

### Contractors' Equipment.

J. D. Collins, sales engineer, 927 Grant Bldg., Atlanta, Ga., reports that he is now representing a complete line of cement and mortar mixers, light-weight paving machines, cement blast guns, floor surfacing machines for wood, tile and marble floors; hoists, centrifugal pumps, and other machinery of interest to the contractor.

### Perfects Cotton-opening Machine.

Because of the increased demand by textile manufacturers for a machine that will open and clean cotton and at the same time not subject the staple to the harsh treatment of beating from feed rolls, a new design of vertical cylinder cotton opener has been perfected and is now being built at the Kitson plant of the Saco-Lowell Shops, Lowell, Mass. The machine is said to be ruggedly and substantially built to withstand hard usage. Owing to the company's long experience of nearly 70 years in designing and building opening and picking machinery, and with modern engineering methods applied to the old designs, it is stated that details have been worked out to better advantage than heretofore. Vertical cylinder cotton openers and other textile machinery made by the Saco-Lowell Shops are represented in the South by Rogers W. Davis, Charlotte, N. C.

### Interesting Power Installation.

At the Candler cotton warehouse in Atlanta, which is one of the largest of its kind, there is installed a cotton compress 400x1100 feet, said to be the largest on the Atlantic seaboard. This cotton warehouse and compress covers 40 acres of land and is part of a gigantic project being launched by Mr. Asa G. Candler of Atlanta. Power for the compress is supplied by a 50 K.W. 250 RPM, 125/250-volt, 3-wire compound-wound electric generator furnished by the Western Electric Co. of New York. Four more warehouses 200x1100 feet are being added, and each warehouse will be equipped with similar generators. During the cotton stagnation in the South in 1915 Mr. Candler took the farmers' cotton, compressed it, stored it and issued to the farmers warehouse receipts, negotiable at any bank—the loans being made on an average basis of 10 cents per pound. The farmers were thus able at that time to borrow almost as much on their cotton as they could obtain by selling it.

### Oconee Brick Company Busy.

Organized in 1908 to manufacture clay products, the Oconee Brick & Tile Co., which has 45 acres of raw material to supply its modern plant at Milledgeville, Ga., reports business very good, many orders being placed for present and future delivery. Products from its five modern kilns are being shipped all over the South as far west as Texas and southward to Cuba. Clay products manufactured by the Oconee company include Interlocking building tile, hollow tile, fire clay flue lining, pipe, chimney and stove tops, sewer pipe, fittings, fire brick, fireproofing, cupola blocks, furnace

door lining, locomotive tile, farm drain tile, fire clay, wall coping, etc. Several of the larger contracts in which Oconee brick and tile have been used are the Dempsey Hotel, Macon; Healy Bldg., Atlanta; Savannah Hotel, Savannah; Union Terminal Warehouse, Jacksonville; Heard National Bank, Jacksonville; Forrest City Hotel, Rome, and Georgia Casualty Bldg., Macon. Officers of the company are J. S. Bone, president; J. H. Stevens, vice-president, and Frank Bone, secretary and treasurer.

## TRADE LITERATURE

### Byers Auto-Crane.

Improved Model "C" Byers locomotive crane is illustrated and described in Bulletin No. 1004 issued by the John F. Byers Machine Co., 240 Sycamore street, Ravenna, O. The machine is mounted on road wheels, has forward and reverse propelling mechanism and operates orange peel buckets or used as a portable derrick. Principal specifications are given in the bulletin, together with several illustrations showing a variety of material handling and digging operations by the Byers auto-crane.

### Electric Railway Line Material.

Direct suspension materials for electric railway lines are illustrated and described in catalogue 44004-A, issued by the General Electric Co., Schenectady, N. Y. The products listed include pole brackets of several designs, clamps and bands, suspensions of all kinds, ears for round, grooved and figure 8 wire, strain insulators, soldered and mechanical splicing sleeves, turnbuckles, trolley frogs, trolley crossings, section insulators, section switches, feeder insulators, anchor rods and anchors.

### Standard Scales.

Scales for every purpose are illustrated and described in a folder issued by the Standard Scale & Supply Co., 1631 Liberty Ave., Pittsburgh, Pa. Some of the special types made are "the Standard" grain hopper scales, Monitor rolling mill scales, "the Standard" auto truck scales, coal dealers' scales, automatic dial scales, textile scales and portable platform scales of many designs. In fact, with over 142 different types of scales listed in the folder, the company states it makes a number of special scales which are not included in that number. Hand trucks and concrete and other mixers are also manufactured by the Standard Scale & Supply Co.

### Slate and Slate Products.

A digest of slate and slate roofer's supplies has been compiled for the slate trade by J. Bray & Co., East Bangor, Pa., to give a complete summary of the way slate is made and its proper method of application to give the best service. The company manufactures Bangor roofing slate and deals in Pennsylvania black, sea-green, purple, variegated, Brownville, Maine, and peach bottom slate for all purposes. Blackboards and slate mantels, slaters' felt, cement, copper and galvanized wire nails, punching machines and slaters' tools are also handled by the company. Upon request a copy of the pamphlet will be sent to architects.

### Northrop Automatic Looms.

Higher wages and scarcity of help in the textile industry increase the proportional advantages of operating Northrop automatic looms, states the Draper Company of Hopedale, Mass., in its September issue of "Cotton Chats." The company features in that number an editorial extract from the MANUFACTURERS RECORD of August 10, entitled "Labor Shortage Should Be Met by Labor-saving Machinery." It also contains figures compiled by the Department of Labor showing the number of immigrants to this country during the last 10 years, laying stress on the fact that for the last two years the net average number of immigrants per annum has been 145,844, while the average per annum from 1905 to 1914, inclusive, was 1,012,194.

### General Electric Price List.

Established prices of renewal parts for car equipment, mine locomotives and of railway and mine line material are listed in Bulletin No. 44001-J, which supersedes Bulletin 44001-I of the General Electric Company, Schenectady, N. Y. The tabulation comprises the catalogue numbers found in all the bulletins, arranged in numerical order with the appropriate list price opposite each, excepting in a few instances where the price is entirely omitted. Where no price is given, quotation will be made on application to the company's nearest sales office. However, all prices are subject to change without notice.

### House Moving and Steel Construction.

Types of office and mill buildings, bridges and coal tipples erected by John Eichleay, Jr., Co., Pittsburgh, Pa., in various parts of the country are shown in a folder recently issued. The company furnishes fabricated steel for and erects office and mill buildings, bridges, tipples, towers, and riveted steel structures of all descriptions, contracting for completed buildings, including foundations, steel frame, walls, roofing, siding, doors and windows. Another folder of the company describes its activities in house raising and moving and shoring and foundation work. It specializes in moving intact machinery and heavy objects of all sizes up to complete units, such as blast furnaces, car unloaders, etc.

### Resources of Tennessee.

October number of The Resources of Tennessee, a magazine devoted to the description, conservation and development of the resources of Tennessee, has recently been published as Vol. 1, No. 4, by the State Geologic Survey, Nashville, Tenn. Contents of this number include a treatise on the conservation of phosphate rock in Tennessee by W. C. Phalen, director of the United States Geologic Survey, and an extensive article by R. S. Maddox, forester of the State Geologic Survey, on the progress in reclaiming waste lands in West Tennessee. Several pages in the back of the pamphlet contain a list of other publications issued by the State Geological Survey of Tennessee, which will be sent on request when accompanied by the necessary postage.

### Simplex Electrification System.

Transmission of electric current to industrial and mine locomotives by the Simplex surface contact system is described in a catalogue issued by the Simplex Surface Contact Co., Williamsport, Pa. This system is applicable to the electrification of industrial railways and cranes, producing in effect the same result that is attained by means of an overhead trolley or third rail, but it is claimed to be without the attendant dangers or interference of trolley and third-rail systems. Full track equipment, with its distribution system of contact gravity switch boxes bolted at fixed intervals to the ties, and the locomotive equipment, consisting principally of a pair of magnetic bars and brass collector shoe, are illustrated and described in detail in the catalogue. The Simplex surface contact system can also be used on gantry cranes, locomotive cranes, lifting magnets and overhead carriers.

### Small Concrete Garages.

Many designs of small concrete garages are illustrated and described in a recent pamphlet published by the Portland Cement Association, 131 W. Washington St., Chicago. The question of "Safety First" as relating to the fire hazard is emphasized in the pamphlet, and it is pointed out that everywhere increasing preference is being shown for concrete construction, not only in cities where laws enforce fireproof construction, but in the rural districts. The farmer builds concrete dairy barns, concrete silos, concrete feeding floors, concrete tanks and troughs—in fact, the farm uses of concrete are almost innumerable. Permanent concrete highways are increasing in mileage in strict accordance with their increase in popularity, and suggests that the automobile should leave the permanent concrete highway only to enter the permanent fireproof concrete garage. Plans shown in the pamphlet suggest designs for monolithic concrete concrete block and cement stucco on metal lath supported by steel frames.

### Excavating Contracts.

Many interesting earth-handling operations are described and illustrated in the October issue of the Excavating Engineer, published monthly by the Excavating Engineer Publishing Co., 267 National Ave., Milwaukee Wis. One of the jobs described is the double

track work from Spartanburg to Wellford, S. C., for the Southern Railway Co. About 200,000 cubic yards of material was moved by the contractors, A. & C. White of Ashland, Va., between November 1, 1915 and July 31, 1916. The equipment consisted of one 70-C Bucyrus steam shovel furnished by the Bucyrus Company, South Milwaukee; 22 "heavy-duty" 4-yard cars made by the Western Wheelbarrow Co., Aurora, Ill., and two 20-ton Davenport dinky engines built by the Davenport Locomotive Works, Davenport, La. Among other subjects discussed that are of interest to contractors is an article on concreting in cold weather, and information is given regarding Southern earth-handling contracts in Arkansas, Florida, Georgia, Louisiana, Maryland, Mississippi, Missouri, North Carolina, Oklahoma, Texas and West Virginia.

### Sturtevant Products.

Bulletins No. 222 and No. 228, issued by the B. F. Sturtevant Company, Hyde Park, Boston, illustrate and describe, respectively, Sturtevant fuel economizers in power plants of paper mills, and Design No. 3 multivane volume fans. Illustrations are shown in Bulletin 222 of a few representative fuel economizers, also layouts of the apparatus used in some of the paper-mill installations by the Sturtevant Company, such as those for the West Virginia Pulp & Paper Co. at Covington, Va., and Mechanicville, N. Y.; Strathmore Paper Co., Woronoco, Mass.; Abitibi Power & Paper Co., Iroquois Falls, Ontario, Canada; Detroit Sulphite Pulp & Paper Co., Detroit; Poland Paper Co., Mechanic Falls, Me.; International Paper Co., Rumford Falls, Me., and Great Northern Paper Company, East Millinocket, Me. Bulletin No. 228 contains advance information, dimensions, capacities, horsepower, etc., of design 3 multivane power-driven fans, which have been developed mainly to provide a line of fans of this type, which will have a larger outlet area for a given volumetric capacity, which causes the highest mechanical efficiency to occur at a lower velocity for a given maintained resistance.

## Book Reviews.

Exporting to Latin America. By Ernest B. Filsinger, president Filsinger-Boette Shoe Co. Published by D. Appleton & Co., New York. Clothbound, 565 pages. Price \$3.

This is a handbook for merchants, manufacturers and exporters which is written by a business man for business men. One of its most valuable features lies in the fact that it gives within a comparatively small compass an exhaustive fund of information for those who wish to deal directly in a business way with the Latin-American Republics, and it furnishes as well extended first-hand knowledge of the people and their literature. A section of the book is devoted to tariffs, custom-house regulations, the preparation of suitable advertising matter, shipping routes, etc.; another describes European and American methods of the export commission houses, methods of obtaining general and local agents, and, in fact, supplying all needed information for everyday use, making this volume a complete encyclopedia of facts concerning the economic, social and commercial situation in the countries south of us.

Dr. L. S. Rowe, professor of economics, University of Pennsylvania, comments that Mr. Filsinger has made a clear and systematic presentation of the conditions necessary to the development of foreign trade, the conclusions being based on personal study and observation. Successful competition for Latin-American trade is not a question of prices, but involves a great number of other considerations—questions of credit, adaptation to local taste, willingness to conform to local commercial methods, etc. With information concerning the requisites of Latin-American trade thus made accessible in clear and compact form, American merchants and manufacturers can no longer complain if they fail because of ignorance of the conditions upon which the expansion of that trade depends.



## TWENTY-SECOND ANNUAL REPORT

—OF THE—

## SOUTHERN RAILWAY COMPANY

YEAR ENDED JUNE 30, 1916

Richmond, Va., Oct. 10, 1916.

## To the Stockholders of Southern Railway Company:

The Board of Directors submits the following report of the affairs of the Company for the year ended June 30, 1916:

The industrial characteristics of the year in the South have been revival and expansion. The march of progress, which was interrupted at the outbreak of the European war by the depression in the price of cotton, the South's chief staple, has been resumed. This fact is reflected in the revenues of Southern Railway Company. During the months of July, August and September, 1915, those revenues continued to be on the footing of the conditions which obtained during the previous year, but beginning with October they swelled progressively until they reached a volume greater than at any similar period in the history of the Company. The result was that for the entire year the revenues amounted to \$89,957,675.24, or only slightly less than in the year ended June 30, 1914, which still marks the high record on that side of the annual account. On the other side of the account this year there are reflected the lessons of experience learned during the previous year of depression. Expenses were so controlled that in the aggregate they were actually less than in the previous year, to the great advantage of the income over all charges, which grew to \$9,245,703.58, or \$2,215,728.89 more than in 1913, the last previous record in that respect. While this is a gratifying achievement, it must be noted also that the net operating income (\$21,004,065.99), which is the basis of the results secured this year, is the equivalent of a return of only 5.31 per cent. on the investment (\$395,722,785.06) in the railroad and equipment which produced it. It may perhaps be said that there is no industry except a railroad in which so large a capital is risked for such a return in its most successful year.

These results, and the financial condition of the Company at the close of the year, appear in detail in the Income Statement and the General Balance Sheet, as well as in the other tables which are part of this report.

## OPERATING CONDITIONS.

There was a marked increase in efficiency in all the physical operations. With an increase of revenues of 12.54 per cent., and an increase of revenue ton miles of 20.16 per cent., showing the larger volume of business done this year as compared with last, revenue train miles decreased 1.89 per cent., and transportation expenses decreased .03 per cent. Transportation costs per dollar of revenue were 32.50 cents, or 11.18 per cent. less than in 1915, and 10.57 per cent. less than in 1914. This was accomplished in various ways, but "not without dust and heat." Great attention was given to increased loading of trains, and the average loading attained was 41.05 tons as compared with 38.23 tons in 1915, 33.21 tons in 1914 and 28.24 tons in 1908. In considering these figures the map of the Southern, and the characteristics of its traffic, should not be forgotten. The relatively large proportion of branch line mileage operated, on which an arbitrary service must be maintained, and the amount of high class merchandise and perishables carried, are constant limitations of average tonnage. This point may be illustrated by the following comparative statement of the operating results of the several main lines which constitute the backbone of the system:

	Per Mile of Road.				Per Train Mile.				
	Average Miles Operated.	Gross Revenue.	Operating Income.	Freight Revenue.	Revenue Tons.	Freight Revenue.	Total Tons.	Transportation Costs per \$100 Revenue.	Operating Costs per \$100. Reve- nue.
System—This Year.....	7,022.92	\$9,967	\$2,991	\$6,695	719,571	\$3,320	442	32.50	69.95
Main Lines.....	2,272.61	18,880	7,696	12,542	1,407,910	3,460	509	27.53	59.40
Washington-Atlanta.....	662.78	25,896	11,049	15,542	1,633,675	3,352	461	26.95	57.33
Atlanta-Birmingham.....	170.69	12,207	2,004	7,268	918,308	2,555	40	40.70	83.58
Greensboro-Pittsboro.....	270.19	13,185	7,209	10,931	1,147,981	4,224	476	18.91	45.37
Bristol-Chattanooga.....	246.13	22,005	9,720	14,679	1,758,588	3,771	569	24.77	55.82
Morristown-Ashville.....	88.37	26,630	13,132	22,613	2,550,552	3,677	709	20.95	50.80
Ashville-Salisbury.....	145.09	18,553	5,394	11,127	1,560,892	2,655	477	33.49	70.93
Ashville-Spartanburg.....	69.51	14,615	4,325	9,241	1,078,185	2,444	412	29.82	69.30
Spartanburg-Columbia.....	95.70	10,590	4,933	7,458	917,536	5,461	813	38.13	78.15
Chattanooga-Memphis.....	315.07	10,337	4,197	6,988	827,067	3,234	434	29.51	61.62
Chattanooga-Macon.....	259.16	16,096	5,149	10,857	1,259,334	2,551	508	32.99	67.60

To state the operating efficiency results in another way: the unit cost for freight engines, fuel and ton miles decreased 10.25 per cent., as compared with the previous year. The mileage of loaded freight cars increased 15.16 per cent., or, to state it differently, with an increase of 16.22 per cent. in freight revenue, the total freight-train car miles, loaded and empty, increased only 8.40 per cent., due to the fact that there was a decrease of empty freight car miles of 7.30 per cent. Freight locomotive fuel costs per 100 ton miles decreased 10.42 per cent., as compared with 1915, and 19.81 per cent., as compared with 1914, while pounds of coal consumed per 100 ton miles were 6.32 per cent. less in 1916 than in 1915 and 14.18 per cent. less than in 1914.

The problem of operating economy, and the method of solving it, are both reflected in the following comparative statistics:

	Freight Earnings.	Tractive Power of Freight Engines.	Freight Locomotive Miles.	Net Tons Per Locomotive Mile.
1908.....	\$34,171,329.17	34,900	17,622,105	219.46
1915.....	47,029,481.81	38,112	14,366,475	414.34
Increase.....	37.50%	9.2%	28.47%	89.03%

Another important item of true economy has been the progressive control of charges for losses, damages and injuries, as illustrated by the following figures:

CHARGES FOR LOSSES, DAMAGES AND INJURIES, YEARS ENDED JUNE 30.			
	1916.	1915.	1914.
Injuries to Persons.....	\$766,252	\$1,046,183	\$1,293,502
Loss and Damage—Freight.....	844,965	962,070	1,072,628
Loss and Damage—Baggage.....	6,248	5,926	10,617
Damage to Stock on Right of Way.....	128,889	155,164	159,186
Damage to Property.....	121,463	113,623	114,159
Totals.....	\$1,867,817	\$2,282,966	\$2,650,092
Decreases:			
1916 vs. 1915.....		\$415,149	
1916 vs. 1914.....			\$782,275

These few figures are here cited, not only because they are striking, but because they indicate what has been accomplished by the intelligent work of the operating officers, plus the intelligent investment of capital in facilities for economical operation. Other examples of similar tendencies will be found elsewhere in this report. They are at once a source of pride and of stimulus to the management. They contain also one of two reasons for hope in the present parlous condition of the railway industry. The other reason is the progressive development of the volume of freight traffic, demonstrating what may be expected from what has been experienced.

## Maintenance:

The property has been well maintained, and its actual condition at the close of the year was better than ever it was. During the depression of last year a substantial item of retrenchment was the postponement of maintenance of freight-train cars which were then idle. On June 30, 1915, 11.65 per cent. of the freight-train cars owned by the Company were in bad order. During this year they were repaired, or, when found to be in such condition, due to age or damage, as not to warrant repair, were retired and charged off the books through the maintenance accounts. On June 30, 1916, there were only 1.58 per cent. of the freight-train cars owned by the Company in bad order.

## Taxes:

There was a large increase in taxes. Of every dollar of revenue 4.17 cents went this year to taxes, as compared with 3.79 cents in 1914, when the revenues were substantially the same.

It may be of interest to compare this tendency with that of another item of transportation cost over which earnest effort on the part of management can effect some control. This year all station expenses consumed 6 cents of each dollar of freight and passenger revenue as compared with 6.20 cents in 1914. Painless time was when the taxes assessed upon railroad property were, in fact, a contribution by railroad stockholders to government, as many taxing authorities believe they still are, but the fact is that, under regulation, railroad transportation has assumed such a public nature that today taxes have become only one of the costs of transportation service, and so are a tax upon commerce to be distributed among all those who use the railroads, directly or indirectly. It is almost as if a court-house was taxed for the support of the court.

## General Expenses:

The cost, assigned by government authority, to this Company of the Federal valuation of railroads now in progress added \$172,751.52 to the general expenses during the year, an increase of \$74,590.29 over the previous year, making the total of this cost to June 30, 1916, \$308,255.92. If this item of the technical account "General Expenses" is deducted, it will be found that the actual cost of administration of the property and traffic solicitation has been reduced six and one-half per cent. this year, as compared with last, and in greater proportion as compared with previous years.

## CHARACTERISTICS OF TRAFFIC DURING A YEAR OF EXPANSION.

## Freight:

The forecast in the last annual report respecting freight traffic is happily sustained by the gross freight revenue increase for the year of \$6,561,623.96, equal to 16.22 per cent. Compared with the previous maximum, obtained in 1914, the increase in freight revenue is \$1,388,274.69, equal to 3.94 per cent. The total revenue-producing tonnage of 30,272,132 tons, exceeds that of the previous year by 4,375,720 tons (16.90 per cent.), and is 621,976 tons in excess of the previous maximum, obtained in 1914.

It is a common fallacy to assume that the success of a railroad in the South depends upon the tonnage of raw cotton carried. In the case of the Southern Railway this year the tonnage of cotton, and cottonseed and its products, actually decreased 239,416 tons (14.5 per cent.), due to the short crop, while the tonnage of all revenue freight increased 4,375,720 tons (16.90 per cent.).

Bituminous coal and coke tonnage was substantially the same as in 1914, and included 126,189 tons passing over the new tipples at Charleston, which was put in operation September 2, 1915. But for the scarcity of vessels, and consequent high cost of ocean transportation, it is believed that this new business would have been of much larger volume. The present outlook warrants the belief that our bituminous coal traffic, both domestic and foreign, will rapidly expand, but the percentage of manufactured products handled may be expected always to exceed the coal tonnage. This is one of the characteristics of the Southern Railway which is also part of its operating problem, as already stated.

While we have not, in a large way, shared in the movement of munitions and supplies for the nations at war, we have handled a substantial tonnage of raw materials for the manufacture of munitions as well as some of the munitions.

The following condensed tonnage statement is an illustration of the traffic as well as the operating problem, and, in its balance between raw material, manufactured products and coal, indicates also the strength of the Company's claim to serve the South, and not merely any part or class of it.

	Per Cent. of Total Tonnage.
Manufactures and Miscellaneous.....	29.43
Bituminous Coal.....	28.69
Other Products of Mines.....	12.19
Products of Forests.....	16.50
Products of Agriculture.....	11.86
Products of Animals.....	1.11

A reconstruction of freight charges in the South, in conformity to the amended long and short haul requirement of the Federal law, is in progress, under the direction of the Interstate Commerce Commission. The first tariffs, containing revised inland rates, effective January 1, 1916, virtually eliminated the so-called "basin-point" system under which some of the more important commercial centers of the interior South enjoyed lower rates from primary markets than were charged to the more numerous, but smaller, intermediate communities. While some of the larger communities which had enjoyed the benefit of the depressed rates feared the effects of the revision, there is no evidence, after a trial of more than six months, of injury to any industrial or commercial interest. It is believed that with the completion of this work of reconstruction, our people, as a whole, will be better satisfied than ever before with our system of rates.

Prospects are favorable for a healthy growth in all lines of freight traffic during the year 1917. The South has had a prosperous year and intends to have another. As this report is written, there is apparent, throughout the South, that feeling of industrial and commercial exhilaration which comes to every Southern man, whether or not he owns any of the staple, with the exultant repetition of the phrase "fifteen-cent cotton."

## Passenger:

The passenger revenues began showing gains in November, which have since continued, month by month, in amount more than sufficient to recover the losses in revenue occurring during the preceding four months of the year. While the passenger revenues have not yet returned to the highest record, which was made in the year 1914, it is expected that this may be accomplished within the year 1917.

As population multiplies in the territory served, so also do passenger revenues increase, but in greater proportion. For the period 1908 to 1916 the population of the States served by the Southern Railway increased 14.31 per cent. For the period 1910 to 1916 the population of those States increased 7.87 per cent. In the same periods our passenger revenue per mile of road increased 69.23 per cent. and 13.94 per cent., respectively.

The decrease in passenger-train mileage this year, as compared with last, was due to rearranging service and taking off trains that did not pay the cost of operation.

As part of the consideration of passenger traffic, attention is called to the statement, published this year for the first time, showing a division of expenses between freight and passenger traffic. From this it will appear that, while passenger trains earned an average of \$1.28 per mile run, the revenue from passengers was substantially \$1.04 per train mile, and the cost to run a passenger train one mile was \$1.13, or approximately 9 cents per mile greater than the revenue derived from passengers. The prevailing passenger rates are not sufficient adequately to support the character of passenger service furnished to the public.

## INDUSTRIAL AND AGRICULTURAL DEVELOPMENT OF THE TERRITORY SERVED.

## Manufacturing:

There has been, during the year, a steady growth in the number of manufacturing establishments in the territory served by our lines, and many additions have been made to previously existing plants. The development of the year has been through the continued healthy growth of those industries for which the South offers best opportunities. New plants completed during the year were as follows:

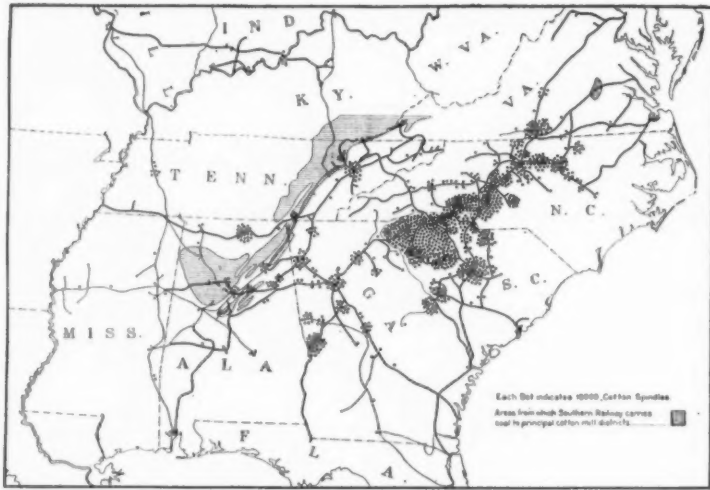
Brick, Tile, etc.....	16
Canneries.....	9
Chemical Factories.....	14
Chemicals.....	24
Cottonseed Products, Ginneries, etc.....	21
Creameries.....	6
Fertilizer.....	5
Flour and Feed.....	108
Furniture.....	12
Iron Products.....	24
Lumber.....	122
Power Developments.....	13
Stone, Coal, Mineral, etc.....	13
Tanneries.....	61
Textile, Clothing, etc.....	39
Woodworking.....	24
Miscellaneous.....	294
Total.....	684

The capital invested in these new industries is \$25,244,550. During the year there were additions made to 239 previously established manufacturing establishments, at a reported cost of \$16,888,550. Plants reported under construction on June 30, 1916, were eighty in number, with a capital of \$16,327,700. General improvements, consisting of new buildings of all kinds (except those used in manufacturing), public utilities, etc., cost \$67,548,640.

The United States census of manufacturing in 1914, the figures for which have recently been completed, shows that, in the five-year period covered by the census, the value of the products of manufacturing in the Southern States traversed by our lines increased 18.44 per cent., as compared with an increase of 17.20 per cent. in all other States.

A notable feature of Southern manufacturing development is the rate at which the consumption of cotton, one of the principal raw materials of the South, has increased in Southern mills. United States Census figures show that in the twelve months ended July 31, 1916, the mills of the South consumed 3,526,787 bales, as compared with 3,926,968 bales last year, an increase of 499,818 bales, or 16.51 per cent. The mills of all other States consumed 2,869,185 bales in the twelve months this year, as compared with 2,570,393 bales last year, an increase of 298,792 bales, or 11.62 per cent. Fully seventy-five per cent. of the cotton spindles of the South are in mills along the lines of Southern Railway Company and its associated

companies. This important fact, and the actual number of spindles so located, are graphically illustrated by the following map of our lines:



#### Agriculture:

As the opportunities for profitable farming in the South become better known, numbers of substantial farmers are attracted to locations along our lines, and our reports show 862 sales of farm lands on the Southern Railway during the year, of which 447 were sales to buyers from the North and West. These figures do not represent the total movement of Northern and Western farmers into the territory, but only those as to whom definite reports are available.

While fully maintaining their production of cotton, which must ever be the leading cash crop of a large part of the South, and their production of tobacco, which is the principal cash crop of some localities, Southern farmers are rapidly adopting systems of diversified farming and crop rotation with the raising of live stock, tending to increase the aggregate net income of the farm and to make the farmer more independent of the fluctuations in the market price of a single commodity. By the extensive growing of soil-building legumes, and by giving more attention to live stock, the productivity of Southern soils is being increased, with corresponding increases in the average yields per acre of cotton and other staple crops.

The outstanding feature of present-day agricultural development in the South is the growth of the live-stock industry and the improvement in the quality of Southern farm animals. The longer grazing seasons of the South, and the great variety of forage crops that can be produced, give the South distinct advantages over all other parts of the United States for the production of meats and dairy products. The extent of these advantages is indicated by experiments made by the United States Department of Agriculture in the cost of raising beef cattle in the corn belt, in Pennsylvania, and in Alabama. It was found that the average cost per hundred pounds of raising a calf to the age of twelve to fifteen months was \$11.79 in the corn belt, \$7.24 in Pennsylvania, \$4.41 in North Alabama, and \$4.69 in West Alabama. The conditions under which the Alabama experiments were conducted are similar to those prevailing in a large part of the territory traversed by our lines. The rate at which the quality of Southern farm animals is being improved is indicated by the fact that 5,336 pure-bred cattle were placed on farms along our lines during the year. In the same period 1,243 silos were built along our lines.

Our reports show the planting of 2,886,000 apple, peach, Satsuma orange and other fruit trees along the Company's lines during the fiscal year. During the year we continued our policy of co-operation with the State and Federal governments, agricultural colleges and Southern farmers for the development of agriculture along our lines. Active demonstration work was done on 1,075 demonstration fields, and our agricultural agents addressed 453 meetings of farmers during the year, with an attendance of 46,981. This Company was a pioneer in the South in work of that character; now, happily, the duty and the opportunity of such practical education have been largely assumed by Federal authority, supplemented by many volunteer private agencies. Governmental agricultural demonstration has recently been extended, under the so-called "Smith-Lever Act," into most of the counties traversed by our lines. The turning of Southern farmers to diversification has, meanwhile, introduced serious market problems for the individual farmer. For these considerations, our organization engaged in co-operative farm development work was, at the beginning of the present fiscal year, converted into an agency for finding profitable markets for farm products and for bringing producers and purchasers together. A special feature of this work, which is being carried on in co-operation with the Bureau of Markets and Rural Organization in the United States Agricultural Department, and with the agricultural agencies of the States, is the promoting of the organization of associations of small producers to sell together on a co-operative basis.

**Good Roads:** Incomplete returns to the United States Office of Public Roads show that, during the calendar year 1915, 12,155 miles of improved country roads were built in counties traversed by Southern Railway lines, and that those counties issued bonds for road construction during the year aggregating \$9,026,300. The road and bridge taxes paid by this Company are a substantial contribution to this progress. For the calendar year 1915 such taxes amounted to \$485,524.35, equivalent to interest on \$8,092,000 of six per cent. county road bonds.

**THE ADDITIONS TO CAPITAL ACCOUNT AND TO PROPERTY INVESTMENT.** No new railroad has been built or acquired. While the South undoubtedly needs additional railroads for its full development, there is now small public inducement held out to private initiative to assume the permanent responsibility of operation of a new railroad in territory where traffic must be created. Our use of new capital has been, for some years, devoted to a steady effort to control operating costs on our existing lines, and so, at once, to assure our security holders a return on the capital they have at risk, and to make our lines better instruments to serve the needs and the convenience of the people of the South. The results of this policy are beginning to be apparent in the control of expenses this year.

The investment in road increased \$6,368,548.42, representing net additions made during the year, exclusive of expenditures, amounting to \$2,556,361.67, for double track on the Atlanta and Charlotte Air Line Railway. This investment represents, as stated, betterments for greater economy and efficiency of operation. The investment in equipment accounts shows a decrease of \$3,137,519.68, brought about by the retirement of old freight cars which were in bad order and unprofitable to repair. The new equipment, to cost \$5,833,029.65, contracted for, but not delivered, during the year, is not yet included in this investment account. Further substantial additions to equipment should be made, during the coming year, to take care of an expanding traffic and to balance the hire of equipment account.

There was no increase in Mortgage Bonds outstanding. Equipment Trust Obligations increased \$2,244,000. First Consolidated Mortgage five per cent. bonds in the amount of \$3,025,000 were sold and the proceeds applied to the redemption of \$1,925,000 of Columbia & Greenville First Mortgage six per cent. bonds, which matured on January 1, 1916, and \$1,100,000 Serial Mortgage six per cent. bonds of Virginia Midland Railway Company, which matured on March 1, 1916. These transactions resulted in no increase in the funded debt, while the difference in the interest rates borne by the old bonds and the new means a reduction of \$30,250 in the annual interest charges.

There were drawn, and taken into the treasury, \$5,885,000 Development and General Mortgage four per cent. bonds. Of these bonds, \$5,000,000 were drawn, under the terms of the mortgage, for additions and betterments, and the remaining \$885,000 were drawn for the proportion charged to capital of certain equipment trust obligations paid during the year. The total amount of Development and General Mortgage four per cent. bonds available for disposition on June 30, 1916, was \$38,474,000, of which \$25,267,000 are pledged as collateral for notes, leaving \$13,207,000 of such bonds in the treasury.

There were issued \$5,000,000 one-year five and one-half per cent. notes, dated February 1, 1916, and the proceeds therefrom applied to the payment of the like amount of three-year five per cent. notes which matured February 1, 1916.

#### Double Track:

The double-track construction work on the main line north of Charlotte, N. C., carrying with it improved alignment and elimination of heavy grades, was completed during the year on 75 miles of the 115 miles of main line between Washington and Charlotte operated as single track at the beginning of the past fiscal year. The work on the remaining 40 miles is rapidly approaching completion, and the entire main line north of Charlotte should be in operation, as a double-track railroad on revised grades, early in 1917. On the line between Charlotte and Atlanta, the double-track work is nearing completion on the 56 miles between Spartanburg and Central, S. C., and on the 23 miles between Cornelia and New Holland, Ga., and is progressing on the 50 miles between Central and Cornelia and on the existing single-track gauntlet of 5.5 miles between Suwanee and Duluth, Ga. Additional funds were made available for carrying on this work through the sale, in March, 1916, of \$7,000,000 First Mortgage thirty-year five per cent. bonds of The Atlanta and Charlotte Air Line Railway Company. The justification of the policy of double-tracking the main line from Washington to Atlanta is seen in the fact that the entire 649 miles of this line earned this year well over \$25,000 a mile in revenue.

There were 491.42 miles of double track in operation at the close of the year, and 60.84 additional miles then completed but not in actual operation.

#### SERVICE OF EMPLOYEES.

During the year the organization of the officers and employees was knit closer than ever before. The confident claim that it is now an efficient organization, working smoothly and heartily together for a common purpose, seems to be justified.

Demands made on behalf of a comparatively small portion of the entire industrial army, in a nation-wide wage movement of train service employees, were apparently supported but half-heartedly, if at all, by our older men. What they would have done in case of a strike it is unnecessary now to conjecture, but it is apparent that they are greatly relieved that no decision was necessary, for, as good citizens, they felt keenly the many pronounced private and public manifestations of disapprobation of the attitude into which the leaders of their brotherhoods had put them. They are, and of right ought to be, a well paid, prosperous and contented class of hard-working, self-respecting, manly and efficient public servants. They are in no need of humanitarian sympathy, and they have the respect and esteem of their officers.

#### STORM DAMAGE IN JULY, 1916.

The property suffered severely from flood and storm at the beginning of the new fiscal year. On July 5th and 6th a tropical hurricane swept over the Gulf Coast region of Alabama. High winds along the coast reached a maximum of 107 miles per hour at Mobile, on the 5th, and for four days were followed by torrential rains over a large part of the State. Southern Railway water-front property at Mobile was badly damaged by wind and water, and traffic on our lines in Alabama, south and west of Birmingham, was interrupted by the washing out of trestles and fills. Repair work was commenced at once, and on July 13th operation was resumed on the last line on which service had been so interrupted.

In the meantime, a second tropical storm developed in the Caribbean Sea and passed over Charleston during the morning of July 14th, causing some local damage. Moving northwest, it reached the Blue Ridge and there recurred to the northeast, passing up into Virginia with rapidly decreasing intensity. The full force of the storm was felt on the watershed in Western North Carolina, where, at Alta Pass, on the border between McDowell and Mitchell counties, there was a rainfall of 22.22 inches in the 24 hours between 2 P. M. Saturday, July 15th, and 2 P. M. Sunday, July 16th. This is the greatest 24-hour rainfall recorded in the United States. The streams, already bank full from previous rains, were converted into floods, carrying down trees, houses, bridges and wreckage of all kinds, filling railroad cuts and washing out embankments, trestles and bridges. The Catawba River, draining east into the coastal plain, did the chief damage, sweeping away nine railroad and all of the highway bridges which spanned it. Among these were four principal main line bridges of this Company on the radiating Asheville, Charlotte, Columbia and Charleston divisions. The Yadkin River, also draining east, destroyed our North Wilkesboro line for 61 miles through the narrow valley traversed by its upper waters. The French Broad River, draining west through Asheville, wrought devastation upon the roadbed of our Asheville-Morrisstown main line, which follows that river, but, fortunately, our new concrete bridge at Asheville dammed the debris and held, thus protecting the several steel bridges lower down the river. In the Western North Carolina mountains successive avalanches of the water-soaked forest soil, facilitated by its large content of mica, swept away the roadbed, obliterating cuts and fills on both our principal trans-mountain lines. In all, 686 miles of our railroad in North Carolina, South Carolina and Tennessee were put out of service by this storm.

Never was the efficiency of the Southern Railway organization so strikingly demonstrated as in dealing with this emergency. Even before the extent of the damage was known, and while the rains were still falling, materials for repairs were gathered and dispatched. Work went on night and day. Temporary crossings of the Catawba River were promptly effected, and the repair of roadway followed progressively. The last line to be opened was that between Asheville and Salisbury, where the damage was greatest, but even there through service was resumed on September 5th. Without taking into account the loss of traffic, and the cost of detouring trains, the total loss to the Company, on account of storm damage during the month of July, is estimated at approximately \$1,350,000.

#### DIVIDENDS.

The income return for the year has led many stockholders to expect an immediate resumption of dividends upon the preferred stock. Mindful of the just claims of the stockholders to share in the Company's prosperity as they have been compelled to suffer in the periods of its adversity, and fully conscious of the fact that the preferred stock dividends are not cumulative, the Board deems it proper to express a firm and deliberate conviction that the interests of the stockholders will be best served by continuing at this time the policy of conservation of the resources of the Company. When, through the strengthening of those resources and the solution of the problem of permanent financing of existing and future capital requirements, the payment of dividends can be once again confidently resumed, such distribution should reasonably be expected to continue without interruption by periods of temporary business depression. The Board believes that assurance of stability of income is of more real importance to the stockholders than a dividend at this time.

#### ACCOUNTS AND STATISTICS.

The accounts have been examined, as usual, by independent auditors and accountants, Messrs. Patterson, Teale & Dennis, and their certificate is made a part of this report.

Respectfully submitted, by order of the Board, FAIRFAX HARRISON, President.

#### TABLE 1. INCOME STATEMENT FOR YEAR ENDED JUNE 30, 1916, COMPARED WITH YEAR ENDED JUNE 30, 1915.

Operating Revenues:	—Year Ended June 30,—	Increase.	Decrease.
	1916.	1915.	
Freight .....	\$47,020,481 81	\$40,458,257 85	\$6,562,223 96
Passenger .....	16,615,573 10	16,175,573 75	440,183 35
Miscellaneous Passenger-Train .....	368,411 29	353,842 55	14,568 74
Mail .....	1,459,873 37	1,459,882 47	—
Express .....	2,037,282 96	1,688,471 19	348,811 77
Other Transportation .....	1,085,998 62	931,500 25	154,398 37
Incidental .....	1,055,146 52	884,531 81	170,614 71
Joint Facility .....	355,617 67	246,618 56	108,999 11
<b>Total Operating Revenues .....</b>	<b>\$69,997,675 24</b>	<b>\$62,199,509 53</b>	<b>\$7,798,165 71</b>
<b>Operating Expenses:</b>			
Maintenance of Way and Structures .....	\$8,175,411 13	\$8,452,119 17	\$276,708 04
Maintenance of Equipment .....	11,851,701 34	10,891,267 40	\$960,433 94
Traffic .....	1,904,129 24	2,110,486 58	\$206,357 34
Transportation .....	22,751,698 00	22,757,597 47	5,899 47
Miscellaneous Operations .....	404,167 81	388,228 83	15,938 98
General .....	2,038,792 18	2,019,621 01	19,171 17
Transportation for Investment—Credit .....	416,693 58	244,589 87	172,103 71
<b>Total Operating Expenses .....</b>	<b>\$46,041,116 12</b>	<b>\$46,174,710 59</b>	<b>\$133,594 47</b>
<b>Net Revenue from Operations .....</b>	<b>\$23,956,559 12</b>	<b>\$16,024,788 94</b>	<b>\$7,931,770 18</b>
Taxes .....	2,916,426 65	2,586,828 27	329,598 38
Uncollectible Revenues .....	36,127 38	28,916 09	7,211 29
<b>Total Operating Income .....</b>	<b>\$21,004,005 09</b>	<b>\$13,409,054 58</b>	<b>\$7,594,950 51</b>
<b>Non-Operating Income:</b>			
Joint Facility Rent Income .....	\$290,695 07	\$284,477 24	\$6,217 83
Income from Lease of Road .....	67,338 24	65,880 00	1,458 24
Miscellaneous Rent Income .....	136,225 82	124,440 58	11,785 24
Net Income from Rail Leased .....	24,077 44	23,280 85	796 59
Dividend Income .....	1,271,256 09	1,080,243 89	191,012 20
Income from Funded Securities .....	1,106,342 69	1,071,544 35	34,798 34
Income from Unfunded Securities and Accounts .....	479,746 72	504,761 05	\$25,014 33
Miscellaneous Income .....	46,344 02	84,289 79	37,945 77
<b>Total Non-Operating Income .....</b>	<b>\$3,422,026 09</b>	<b>\$3,238,917 75</b>	<b>\$183,108 34</b>
<b>Total Gross Income .....</b>	<b>\$24,426,031 18</b>	<b>\$16,638,972 33</b>	<b>\$7,787,058 85</b>
<b>Deductions from Total Gross Income:</b>			
Hire of Equipment—Balance .....	\$679,354 69	\$837,616 06	\$158,261 37
Joint Facility Rents .....	1,054,240 57	1,046,522 17	\$7,718 40
Rent for Leased Roads .....	1,778,527 90	1,621,040 59	157,487 31
Miscellaneous Rents .....	40,663 98	40,837 36	173 38
Separately Operated Properties .....	189,317 85	183,608 84	5,709 01
Interest on Unfunded Debt .....	623 59	2,294 52	1,670 93
Miscellaneous Income Charges .....	143,175 16	154,681 56	11,506 40
<b>Total Deductions of this Class .....</b>	<b>\$3,885,903 74</b>	<b>\$3,886,601 10</b>	<b>\$697 36</b>
<b>Total Available Income .....</b>	<b>\$20,540,127 44</b>	<b>\$12,752,371 23</b>	<b>\$7,787,756 21</b>
Interest Accrued on Funded Debt .....	\$10,329,591 67	\$10,188,021 65	\$141,570 02
Interest Accrued on Equipment Obligations .....	650,629 16	737,784 54	\$87,155 38
Dividends Accrued on Southern Railway—Mobile and Ohio Stock Trust Certificates .....	226,066 00	226,066 00	—
<b>Total Deductions of this Class .....</b>	<b>\$11,206,228 83</b>	<b>\$11,151,814 19</b>	<b>\$54,414 64</b>
<b>Balance of Income Over Charges .....</b>	<b>\$9,333,898 61</b>	<b>\$1,600,557 04</b>	<b>\$7,733,341 57</b>
Appropriation of Income for Additions and Betterments .....	88,195 03	77,187 72	11,007 31
<b>Balance Carried to Credit of Profit and Loss .....</b>	<b>\$9,245,703 58</b>	<b>\$1,523,369 32</b>	<b>\$7,722,334 26</b>



TABLE 2.

## PROFIT AND LOSS YEAR ENDED JUNE 30, 1916.

Credit Balance June 30, 1915.....		\$19,781,761 78
Add:		
Credit Balance of Income for the Year.....		9,245,703 58
Net Miscellaneous Credits.....		318,249 92
		\$29,345,715 28
Deduct:		
Discount on Securities charged off during the year.....	\$168,496 77	
Property Abandoned and not Replaced.....	45,609 68	
Advances to Proprietary Companies written down.....	\$53,014 00	
		1,067,120 45
Credit Balance June 30, 1916.....		\$28,278,594 78

TABLE 3.

## GENERAL BALANCE SHEET, JUNE 30, 1916, COMPARED WITH JUNE 30, 1915.

ASSETS.		June 30, 1916.	June 30, 1915.	Increase.	Decrease.
Investments:					
Investment in Road.....		\$330,294,263 48	\$323,835,721 06	\$6,458,542 42	
Investment in Equipment.....		65,518,515 58	68,656,135 26		\$3,137,619 68
Total Investment in Road and Equipment.....		\$395,812,779 06	\$392,491,856 32	\$3,320,922 74	
Cash Deposited in Lien of Mortgaged Property Sold.....			\$2,112,590 04		\$2,112,590 04
Physical Property—Rails and Fixtures leased to others.....		\$524,304 70	503,161 93	\$21,142 77	
Investments in Affiliated Companies:					
Stocks.....		\$56,736,304 49	\$26,704,106 32	\$30,032 17	
Bonds.....		28,021,459 04	28,015,459 04	6,000 00	
Notes.....		2,237,573 57	1,865,080 94	372,492 63	
Advances.....		1,999,719 29	2,163,429 30		\$163,710 01
Miscellaneous (Matured interest coupons).....		51,455 00	51,455 00		
Total Investments in Affiliated Companies.....		\$59,046,511 39	\$58,799,530 60	\$246,980 79	
Other Investments:					
Stocks.....		\$1,695,693 58	\$896,879 79	\$698,813 79	
Bonds.....		5,169,380 03	5,158,913 45	10,466 58	
Notes.....		63,909 42	52,625 82	11,283 60	
Advances for purchase of Additional Equipment.....		5,633,029 65		5,633,029 65	
Total Other Investments.....		\$12,562,012 68	\$6,208,419 06	\$6,353,593 62	
Total Investments.....		\$467,855,613 83	\$460,115,557 95	\$7,740,055 88	
Current Assets:					
Cash.....		\$7,127,172 20	\$3,075,178 83	\$4,051,993 37	
Time Deposit.....		1,906,448 05	2,126,700 63		\$220,252 58
Special Deposits.....		3,028,298 45	2,932,371 45	95,927 00	
Loans and Bills Receivable.....		570,260 54	1,517,048 50		\$946,787 96
Traffic and Car Service Balances Receivable.....		1,298,226 89	884,055 85	414,171 04	
Balance due from Agents and Conductors.....		148,419 51	191,527 39		\$42,107 88
Miscellaneous Accounts Receivable.....		4,533,306 69	3,297,412 32	1,235,894 37	
Material and Supplies.....		6,813,172 27	4,539,346 24	2,273,826 03	
Interest and Dividends Receivable.....		667,411 94	612,433 51	54,978 43	
Other Current Assets.....		276,625 18	170,327 67	106,297 51	
Total Current Assets.....		\$26,396,241 72	\$19,248,002 69	\$7,148,239 03	
Deferred Assets:					
Working Funds Advanced to Agents and Officers.....		\$241,776 27	\$146,390 90	\$95,415 37	
Cash and Securities in Insurance Fund.....		1,133,409 42	584,879 63	548,529 79	
Other Deferred Assets.....		185,592 19	235,228 19		\$50,636 00
Total Deferred Assets.....		\$1,559,237 88	\$1,366,598 72	\$192,639 16	
Unadjusted Debits:					
Insurance Premiums and Rents paid in advance.....		\$12,343 96	\$11,809 10	\$534 86	
Unextinguished Discount on Funded Debt (Proportion chargeable to Additions and Betterments to be made).....		130,655 96	162,047 57		\$31,391 61
Additions and Betterments Expenditures in Suspense; Freight Claims in Suspense; Foreign Mileage Suspense and Sundry Items.....		2,848,803 56	2,283,665 64	565,137 92	
Total Unadjusted Debits.....		\$2,982,703 48	\$2,457,522 31	\$525,181 17	
Securities of the Company held by it:					
Unpledged.....	1916.	\$13,403,200 00	\$16,108,200 00		
Pledged.....	1915.	27,267,000 00	18,667,000 00		
Totals.....		\$40,670,200 00	\$34,775,200 00		
Grand Totals.....		\$498,763,796 91	\$483,157,651 67	\$15,606,145 24	
LIABILITIES.		June 30, 1916.	June 30, 1915.	Increase.	Decrease.
Capital Stock:					
Common.....		\$120,000,000 00	\$120,000,000 00		
Preferred.....		60,000,000 00	60,000,000 00		
Total Southern Railway Company Stock.....		\$180,000,000 00	\$180,000,000 00		
Southern Railway-Mobile & Ohio Stock Trust Certificates.....		5,650,200 00	5,650,200 00		
Total Stock.....		\$185,650,200 00	\$185,650,200 00		
Long Term Debt:					
Funded Debt.....		\$226,850,500 00	\$226,844,500 00	\$6,000 00	
Equipment Trust Obligations.....		17,435,000 00	15,191,000 00	2,244,000 00	
Total Long Term Debt.....		\$244,285,500 00	\$242,035,500 00	\$2,250,000 00	
Total Capital Liabilities.....		\$429,935,700 00	\$427,685,700 00	\$2,250,000 00	
Governmental Grants:					
Grants since July 1, 1914, in aid of Construction.....		\$31,668 16	\$13,378 25	\$18,289 91	
Current Liabilities:					
Loans and Bills Payable.....		\$455,000 00	\$455,000 00		
Traffic and Car Service Balances.....		1,580,388 41	1,156,567 52	\$423,820 89	
Audited Accounts and Wages.....		6,150,180 05	5,415,499 79	734,680 26	
Miscellaneous Accounts.....		719,561 36	633,295 38	86,265 98	
Interest Matured, including interest due July 1.....		2,818,680 65	2,740,552 65	77,128 00	
Funded Debt Matured—Unpaid.....		40,773 80	22,673 80	18,100 00	
Dividends Accrued—Unmatured.....		56,592 00	56,592 00		
Interest Accrued—Unmatured.....		1,572,760 05	1,578,496 72		\$5,736 67
Rents Accrued—Unmatured.....		203,404 12	249,266 09		\$45,861 97
Expenses Accrued not vouchered.....		647,908 80	564,375 45	83,533 35	
Other Current Liabilities.....		1,470,638 10	376,357 87	1,094,280 23	
Total Current Liabilities.....		\$15,715,787 34	\$13,249,047 27	\$2,466,740 07	
Deferred Liabilities:					
Equipment of Leased Lines Retired; Deferred Payments Account Reconstruction Rogersville Branch; Contractors' Per Cents Retained and Sundry Items.....		\$1,449,354 66	\$1,385,586 66	\$63,768 00	
Unadjusted Credits:					
Taxes.....		\$1,051,619 96	\$1,011,687 22	\$39,932 74	
Insurance Reserve.....		1,133,469 42	964,979 63	178,489 79	
Operating Reserves.....		3,289,779 83	1,898,431 28	1,391,348 55	
Car and Ticket Mileage Suspense.....		700,219 12	567,821 07	132,398 05	
Depreciation accrued on:					
Rail Leased to Other Companies.....		81,819 37	74,151 18	7,668 19	
Equipment Owned.....		15,472,168 77	15,375,948 50	96,220 27	
Equipment Leased from Other Companies.....		344,196 90	255,061 24	89,135 66	
Sundry Items.....		559,276 05	144,607 81	414,668 24	
Total Unadjusted Credits.....		\$22,532,549 54	\$20,239,687 93	\$2,292,861 61	
Corporate Surplus:					
Additions to Property, since June 30, 1907, through Income and Surplus.....		\$790,020 82	\$677,819 68	\$112,201 14	
Appropriated Surplus not Specifically Invested.....		60,211 81	269,970 15		\$209,758 34
Total Appropriated Surplus.....		\$850,232 63	\$947,789 83		\$97,557 20
Profit and Loss—Balance.....		28,248,594 78	19,781,761 78	8,466,833 00	
Grand Totals.....		\$498,763,796 91	\$483,157,651 67	\$15,606,145 24	

**Merchants - Mechanics First National Bank****BALTIMORE**

CAPITAL. \$2,500,000  
 SURPLUS AND UNDIVIDED PROFITS. 2,189,000  
**\$4,689,000**

Total Resources Over \$35,000,000

**The Largest Financial Institution in the South**

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 Vice-Chairman of the Board  
 HENRY B. WILCOX.....Vice-President  
 JOHN B. H. DUNN.....Cashier

CHARLES HANN.....Asst. Cashier  
 J. CLEVELAND WANDS.....Asst. Cashier  
 C. BRADLEY HAYS.....Asst. Cashier  
 SAMUEL W. TSCHUDI.....Asst. Cashier  
 CLIFTON K. WELLS.....Asst. Cashier

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**The National Exchange Bank****OF BALTIMORE, MD.**

Hopkins Place, German and Liberty Sts.  
 Capital \$1,500,000.  
 March 30, 1915, Surplus and Profits,  
 \$850,000.00.

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 SUMMERFIELD BALDWIN, Vice-Pres.  
 R. VINTON LANSDALE, Cashier.  
 C. G. MORGAN, Asst. Cashier.  
 Accounts of Mercantile Firms, Corporations, Banks, Bankers and Individuals Invited.

**Maryland Trust Company****BALTIMORE**

Capital . . . . \$1,000,000

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 Harry W. Davis, Secretary and Treasurer.  
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Correspondence Solicited

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First National Bank Building, CHICAGO

We purchase SCHOOL COUNTY and MUNICIPAL BONDS. Southern Municipal Bonds a Specialty.

Write us if you have bonds for sale.

**FINANCIAL NEWS****FINANCIAL CORPORATIONS**

Fla., St. Augustine.—The St. Augustine Building & Loan Assn. is being organized with G. S. Meserve, Pres.; J. G. Rutherford, V.-P.; L. Orrin Larson, Secy.; George L. Estes, Treas.

Ga., Macon.—The Bibb National Bank is being organized with \$300,000 capital.

Ga., Macon.—The Fourth National Bank announces that it has purchased the assets and business of the Citizens National Bank. The statement of the new Fourth National Bank shows capital stock \$300,000; surplus and profits \$365,000; deposits \$8,879,934.94; resources \$10,478,165.15; cash on hand \$4,907,769.75. Chas. R. Lewis, Pres.; E. W. Stetson, Chrmn. of Board; John C. Walker, Geo. R. Turpin and F. E. Williams, V.-Ps.; Jno. M. Ross, Asst. to Pres.; R. C. Dunlap, Cashier; Jas. K. Hogan, C. L. West, Asst. Cashiers.

Ky., Maysville.—First Standard Bank & Trust Co. has filed articles of incorporation; capital \$175,000; surplus \$100,000; James N. Kehoe, Pres.; Thomas A. Keith, 1st V.-P.; S. P. Browning, 2d V.-P.; Lucien G. Maltby, 3d V.-P.; J. Banks Durrett, Cashier, and James E. Threlkeld, Asst. Cashier. Business is to begin Nov. 1.

Miss., Senatobia.—People's Bank, capital \$20,000, has begun business; A. L. McCormick, Pres.; Frank Canon, V.-P.; Arnold French, Cashier.

N. C., Asheville.—Asheville Morris Plan Co. is chartered; capital \$50,000; surplus

\$5000; Harmon Miller, Pres.; S. L. Forbes, Secy.-Treas. Business has begun.

Okla., Red Rock.—Red Rock State Bank is chartered; capital \$10,000. Incprts.: R. Weigle, John Knox, Perry; John A. Hansen, W. T. Donahoe, Red Rock.

S. C., Marion.—Marion County National Loan Assn. is organized with W. C. Foxworth, Pres.; A. R. Oliver, Jr., V.-P.

S. C., Newberry.—Newberry Palmetto Trust Co. is chartered; capital \$500, with privilege of increasing to \$50,000. O. B. Mayer is Pres.; Jno. M. Kinard, V.-P., and J. Y. McFall, Secy. and Treas. Business is to begin immediately.

S. C., Pendleton.—Pendleton Building and Loan Assn., capital \$500,000, is incprtd. by B. H. Sadler, O. C. Foster, F. G. Herron, J. M. Burgess, J. A. Raitt, W. L. Green and T. M. Cathcart.

Tex., Fort Worth.—Bankers Loan & Securities Co. of Texas is chartered; capital \$50,000. Incprts.: R. B. Bishop, R. J. Newton and Chas. E. Smith.

Tex., Purdon.—First National Bank, a conversion of the Bank of Purdon, has made application for charter. Capital \$25,000.

Tex., San Antonio.—International Bank & Trust Co. has begun business. Aaron Burleson, Pres.; Geo. E. Chambers, 1st V.-P.; J. H. Bond, 2d V.-P.; Dr. C. E. Fitzgerald, Secy.

Va., Richmond.—State Securities Corp., capital \$300 to \$1,400,000, incprtd. by L. H. Gunther, Samuel Howard and Arthur M. Britton; John H. Bocock, Pres.

W. Va., Fairmont.—Greater Fairmont Investment Co incprtd.; capital \$1,500,000. C. W. Watson, Chrmn. of the Board; C. D. Robinson, Pres.; R. T. Cunningham, Treas., and W. J. Wiegell, Secy. Business is to begin at once.

**NEW SECURITIES**

Ala., Eufaula.—(School).—\$15,000 bonds recently voted will, it is stated, soon be offered for sale. Address Board of Education.

Ala., Talladega.—(Road, Bridge).—Election is to be held in Talladega County Nov. 20 to vote on \$300,000 5 per cent. 20-year bonds. Sam C. Oliver is Judge of Probate, Talladega County.

Fla., Brooksville.—(Water).—\$20,000 of \$100 denomination bonds are voted. Address W. M. Russell, City Clerk.

Fla., Daytona.—(Street).—The election ordered for Oct. 10 to vote on \$160,000 street bonds has been postponed indefinitely. G. Milligan is Clerk.

Fla., Fort Myers.—(Road, Bridge).—Bids will be received until 2 P. M. Nov. 6 for \$164,000 of 6 per cent. 3-29-year \$500 denomination bonds Special Road and Bridge Dist. No. 2, Lee County. H. A. Hendry is Clerk Board County Commrs. (The bonds have been sold, the notice of sale being for legal purposes only.)

Fla., Lake Butler.—(Light).—Election is to be held Nov. 9 to vote on \$10,000 bonds. R. M. Wilson is Mayor.

Fla., Monticello.—(Road, Bridge).—Special Road and Bridge Dist. No. 1, Jefferson County, will on Nov. 1 offer for sale \$15,000 of 6 per cent. 5-20-year \$500 denomination bonds. Address Clerk Circuit Court, Monticello. Further particulars will be found in the advertising columns.

Fla., Quincy.—(Bridge, Road).—Gadsden County is considering the question of holding an election to vote on bonds. Address Chrmn. Board County Commrs.

Fla., Sumterville.—(Road).—Sumter County contemplates issuing about \$300,000 bonds. Address County Commrs.

Fla., Tavares.—(School).—\$4000 Umatilla and \$2500 Sorrento Dist., Lake County, bonds have been sold at a small premium and accrued interest. Wm. F. Kennedy is Supt. of Public Instruction at Umatilla.

Fla., Titusville.—(School).—All bids received Oct. 9 for \$34,000 of an issue of \$100,000 of 6 per cent. \$1000 denomination bonds Special Tax School Dist. 1, maturing 1940, were rejected. E. E. Macy is Secy. Board Public Instruction.

Ga., Augusta.—(School).—Election is to be held in Richmond County Nov. 7 to vote on \$100,000 4½ per cent. bonds. H. R. Pund is Chrmn. and Lloyd T. Hall, Secy., Board of Commrs. of Roads and Revenues, Richmond County. (Recently noted.)

Ga., Lithonia.—(Water, Sewer).—\$35,000 of 5 per cent. 30-year \$500 denomination bonds are voted. J. M. Tribble is Mayor.

Miss., Charleston.—Board of Supvts. gives notice that it proposes to issue \$50,000 6 per cent. 1-5-year bonds to take up Tallahatchie county outstanding warrants. D. S. Henderson is Clerk of Board.

Ky., Dayton.—(Street).—Bids will be received until 8 P. M. Nov. 6 by Will C. Mar-

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American manufacturers are making money now. Some of their profits ought to be invested in Farm Loans.

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It is inevitable that land values will increase from year to year.

**THE SOUTHERN MORTGAGE COMPANY**Capital \$300,000 Established 1870  
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the City Clerk, for \$1879.20 Brooklyn Ave. and \$408.95 Dayton Ave. 6 per cent. bonds.

Ky., Frankfort. — The "State Finances" committee of the Kentucky Bankers Assn. has suggested to the State administration that \$5,000,000 of 4 per cent. 20-year bonds be issued to refund the State debt which is now represented by warrants bearing 5 per cent. interest. The amount of these outstanding Sept. 30, 1916 was \$4,304,253. A special session of the Legislature may be called. Address The Governor.

Ky., Lexington—(Street).—Bids will be received until 10 A. M., Oct. 18, for \$1843.23 of 6 per cent. improvement bonds. James C. Rogers is Mayor.

Ky., Lexington—(Street).—\$439.11 of 6 per cent. bonds have been purchased at par and accrued interest by the Advallor sinking fund of Lexington.

La., Alexandria—(Bridge).—\$40,000 of 5 per cent. 10-year bonds Rapides Parish are to be issued. It is reported. T. C. Wheadon is Pres. Police Jury.

La., Alexandria—(Levee).—Bid will be received until 8 P. M. Nov. 10 by H. B. Gist, Secy. Board of Commrs. Red River, Atchafalaya and Bayou Boeuf Levee Dist., for \$50,000 5 per cent. 5-30-year levee bonds, dated Aug. 1, 1916.

La., Bogalusa—(Water, Sewer, City Hall, Jail, Fire, Street, Bridge).—The Manufacturers Record is informed that \$125,000 water and sewer, \$30,000 city hall and jail, \$25,500 fire department, and \$30,500 street and bridge 5 per cent. 28-year bonds have been purchased at par by Central Trust and Savings Bank, New Orleans, La. (Recently noted.)

La., Many—(Road).—\$30,000 5 per cent. \$500 denomination Road Dist., Sabine Parish, bonds have been purchased at par by Bolger, Mosser & Willaman, Chicago.

La., Welsh—(Light).—\$15,000 electric-light plant bonds are voted. Address The Mayor.

Md., Emmitsburg—(Street).—\$2500 5 per cent. \$100 denomination bonds are voted. Address J. Stewart Annan.

Miss., Brookhaven—(Road).—On Nov. 1 the following Lincoln County bonds are to be sold: Dist. No. 4, \$95,000 5 per cent., and Dist. No. 2, \$80,000. Address Chancery Clerk, Board of Suprs.

Miss., Canton—(Road).—Madison County has sold the following bonds: \$75,000 of 11-25-year Dist. 1 to Tillotson & Wolcott Co. and \$50,000 of 5 per cent. Dist. 3 to Wm. R. Compton & Co.

Miss., Ellisville—(Road).—\$300,000 Jones County bonds have been purchased by the Hibernia Bank & Trust Co., New Orleans, at \$11,100 premium. Election to vote on the issue will be held Nov. 3 as a mere formality to satisfy purchasers of the bonds.

Miss., Nantulesburg—(Road).—Petitions are being circulated in Forrest County asking the Board of Suprs. to call an election within 60 days to vote on \$50,000 Beat 5, Forrest County, bonds.

N. C., Hamlet—(Street).—\$50,000 of 5 per cent. 30-year bonds have been purchased at \$185 premium by M. H. Cutter & Co., Chicago, Ill.

Miss., Holly Springs—(Road).—\$25,000 Marianna Road Dist., Marshall County, bonds have been purchased at 100.575 for 5/8 by Whitaker & Co., St. Louis.

Miss., Leakesville—(Courthouse, Bridge).—\$10,000 of 6 per cent. \$1000 denomination Greene County bonds have been purchased at 104.16 by Cummings, Prudden & Co., Toledo.

Miss., Liberty—(Road).—Bids will be received until 2 P. M. Nov. 6 for the following 6 per cent. 5-25-year \$500 denomination bonds: Dist. No. 1, \$20,000; Dist. 2, \$10,000; Dist. 3, \$20,000; Dist. 4, \$50,000. Wallace Jackson is Pres. Board of Suprs., Liberty.

Miss., Sumrall—(Refunding).—\$5000 5 per cent. 10-year bonds have been purchased at 100.1875, less attorney's fees, by Bolger, Mosser & Willaman, Chicago.

Mo., Galena—(Courthouse).—Election is to be held in Stone County Nov. 7 to vote on \$50,000 courthouse bonds. Address County Commrs.

N. C., Columbus—(School).—\$5000 of 6 per cent. Columbus High School Dist., Polk County, bonds have been purchased by Sidney, Spitzer & Co., Toledo, O.

N. C., North Wilkesboro—(Roads).—\$250,000 of the \$500,000 of 4 1/2 per cent. \$1000 denomination Wilkes County bonds voted Sept. 16 have been purchased at \$5103 premium by Cummings, Prudden & Co., Toledo.

N. C., Tarboro—(Water, Sewer).—\$25,000 5 per cent. 30-year \$1000 denomination bonds have been purchased at par and \$1212 premium by E. H. Rollins & Sons, Chicago.

Okla., Alva—(School).—\$75,000 5 per cent. 20-year Dist. bonds have been purchased by C. Edgar Honnold, Oklahoma City, Okla., at \$76,927.50. G. M. Lisk is Clerk.

Okla., Arnett—(Water).—Election is soon to be held. It is reported, to vote on \$65,000 bonds. Address The Mayor.

Okla., Edmond—(Light, Sewer).—\$9000 electric light and \$1000 sewer bonds are reported sold. Address The Mayor.

Okla., Marlow—(Sewer, Water).—\$25,000 sewer and \$25,000 water-works 6 per cent. 5-25-year \$1000 denomination bonds have been purchased at \$2633 premium by R. J. Edwards, Oklahoma City. Geo. T. Putty is Mayor.

Okla., Novata—(Fire Equipment, Bridge).—\$7000 of 6 per cent. 20-year \$500 denomination bonds have been sold at 2 per cent. premium and interest to C. Edgar Honnold, Oklahoma City.

Okla., Sapulpa—(School).—Election is to be held in near future to vote on \$75,000 school-district bonds. Address Board of Education.

Okla., Woodward—(City Hall).—Election is to be held Nov. 7 to vote on \$50,000 bonds. Address The Mayor.

Okla., Woodward—(Water, Light).—\$12,500 water-works and \$2500 electric-light 5 per cent. 5-25-year bonds have been purchased at 100.05 by R. J. Edwards, Oklahoma City.

S. C., Campobello—(School).—\$2100 of 6 per cent. 20-year bonds, Motlow's Creek School Dist. No. 5, are for sale. Address J. H. Atkins, Chrmn. Board of Trustees.

S. C., Greenville—(Road).—\$500,000 of Greenville County bonds have been purchased jointly at par and \$6050 premium at 4 1/2 per cent. rate by M. A. Kahler & Co. and Hornblower & Weeks, New York.

Tenn., Benton—(School Warrants).—Bids will be received until noon Oct. 30 for \$5500 6 per cent. serials due in 1, 2 and 3 years and \$8000 6 per cent. serials due \$1000 each year for 8 years. H. W. Clary is Chrmn. Board of Education, Polk County. Further particulars will be found in the advertising columns.

Tenn., Hohenwald—(Highway, Bridge).—Election is to be held Dec. 9 to vote on \$100,000 of 5 per cent. 20-year Lewis County bonds. Address J. B. Dabbs. (Recently noted.)

Tenn., Knoxville—(Street).—Bids will be received until 10 A. M., Oct. 31, for \$18,396.25 5 per cent. bonds, dated Nov. 1, 1916 and due Nov. 1, 1921. Robt. P. Williams is Recorder and Treas.

Tenn., Rogersville—(Water).—\$25,000 5 per cent. \$1000 denomination bonds have been purchased at \$1250 premium plus accrued interest by J. N. Cosody, Jr., Co., Council Bluffs, Iowa.

Tex., Angleton—(Road).—\$150,000 Dist. 3, Brazoria county, bonds have been voted. Address County Judge.

Tex., Austin—Bonds approved by Atty. Gen.: \$64,000 5 per cent. street, Port Arthur; \$2000 5 per cent. 10-20-year Johnson County Common School Dist. 24; \$1000 5 per cent. 10-20-year Rusk County Common School Dist. 6; \$2250 Stony Dist. School.

Tex., Austin—State Board of Education has purchased school district bonds aggregating \$106,430.

Tex., Bonham—(Road).—Special dispatch to the Manufacturers Record says \$35,000 Dist. 9, \$20,000 Dist. 10 and \$40,000 Dist. 11, Fannin County, 5 per cent. 10-40-year bonds have been awarded to G. H. Walker & Co.

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at par, accrued interest and \$355 premium.  
S. F. Leslie is County Judge.

Tex., Dallas—(Levee).—\$48,000 bonds Dallas County Levee Improvement Dist. 1, Dallas county, are voted. Address County Commrs.

Tex., Denison—(School).—\$60,000 of 5 per cent. 1-20-year bonds have been purchased at \$2400 premium by John D. Oldham, Dallas.

Tex., Denton—(Road).—Election is to be held in Road Dist. No. 2, Denton County, Nov. 15 to vote on \$900,000 5 per cent. 10-40-year bonds. Fred M. Bottorff is County Judge.

Tex., El Paso—(School).—\$3000 Vinton Dist., El Paso County, bonds are voted. Address Board of Trustees.

Tex., Fairfield—(Road).—\$20,000 Road Dist. 3 and \$7000 Road Dist. 4, Freestone County, road-construction 5 per cent. 10-40-year bonds are voted. Address County Commrs.

Tex., Fort Worth—(School).—\$20,000 bonds Polytechnic Independent Dist. have been purchased at par and premium of 3 per cent. by a Oklahoma firm.

Tex., Frost—(Sewer).—\$10,000 of 5 per cent. 30-year bonds have been purchased at \$101.75 premium by G. J. Heflin of Corsicana.

Tex., Quitman—(Road).—\$150,000 bonds Road Dist. No. 6, Wood County, are voted. Address County Commrs.

Tex., Liberty—(Drainage).—\$70,000 6 per cent. 30-year \$500 denomination Liberty County bonds have been purchased at \$1500 premium by Terry Briggs & Co., Toledo, Ohio.

Tex., Port Arthur—(Water, Sewer).—Election is to be held Nov. 7 to vote on \$80,000 water and \$100,000 sewer bonds. Address The Mayor.

Tex., Refugio—(Courthouse).—Election is to be held in Refugio County Nov. 25 to vote on \$75,000 bonds. Address County Commissioners.

Tex., Waxahachie—(School, Sewer, Street).—\$120,000 bonds are voted. Address The Mayor.

Tex., Timpson—(Warrants).—\$10,000 of 6 per cent. warrants have been purchased by J. L. Arlitt, Austin, Tex.

Tex., Wharton—(Road).—Bids will be received until Oct. 26, inclusive, for \$7500 of 5½ per cent. 40-year bonds Wharton County Road Dist. 2. P. G. Brooks is County Clerk.

Va., Newport News—(School).—\$130,000 bonds will probably soon be offered for sale. Address Board of School Trustees.

W. Va., Grafton—(Road).—Election is to be held Nov. 7 to vote on \$100,000 of 5 per cent. 34-year Knottsville Dist., Taylor County, bonds. C. T. Bartlett is Clerk County Court.

W. Va., Lewisburg—(Road).—\$103,000 of 5 per cent. 20-year Fort Spring Dist., Greenbrier County bonds are voted. Jno. S. Crawford is Clerk.

W. Va., Lewisburg—River, Pike Improvement).—Election is to be held Nov. 7 in Meadow Bluff, Greenbrier County, to vote on \$121,000 5 per cent. bonds to improve 12 mi. of James River and Kanawha Pike within the Dist. Jno. S. Crawford is Clerk County Court.

### FINANCIAL NOTES

The Kentucky Bankers' Assn. at its annual convention last week at Paducah, Ky., elected officers for the year as follows: Pres., Wm. F. Bradshaw, Jr., of Paducah; Treas., Henry D. Ormsby; Secy., Arch. B. Davis, both of Louisville, and both re-elected.

The North Carolina Corporation Commission has issued the reports of the condition of the State, private and savings banks in that Commonwealth at the close of business June 30, 1916. There are 428 banks, including 24 branches. A summary shows total resources of \$36,245,591, which is a net increase of \$15,928,355 as compared with June 23 of last year. Deposits increased more than \$13,000,000 in a total of about \$51,000,000.

## RAILROAD CONSTRUCTION

### RAILWAYS

Ala., Jester.—The Chattahoochee Valley Ry. has completed to Poyledge about 6 mi. of its 10-mi. extension from McCullough to Blecker, Ala.

Fla., Tampa.—Construction has begun near Gary on the proposed line of the Tampa & Eastern Traction Co. from Tampa to Gary, Mango, Seffner, Dover, Plant City, Youmans, Winston and Lakeland, Fla., 33 mi. F. W. Cole is Pres.; E. J. Binford, V.-P. and Gen. Counsel; Frank L. Cooper, Secy., and F. M. Williams, Treas., all of Tampa.

Ga., Washington.—Washington & Lincoln R. R. has completed 13 mi. of line to Lovelace, Ga., of its proposed railroad from Washington to Lincoln, to be altogether about 20 mi. long. J. R. Dyson is Pres. and H. W. Quin, Secy. and Treas., both at Washington.

La., New Roads.—Referring to the recent report that the New Orleans, Texas & Mexico Ry. contemplated an extension from Erwinville to New Roads, 4 mi., the company says that it has no construction, extensions or improvements listed in its budget for the coming year.

Md., Baltimore.—Baltimore & Ohio R. R. has made survey and investigation concerning contemplated short extension from Curtis Bay, near Baltimore, to Hawkins Point, but decision to construct the line is not yet announced. R. N. Begien, Baltimore, is Ch. Engr.

Mo., Mexico.—Concerning the report that the Burlington System and the Santa Fe System contemplated construction of a double-track line from Mexico to Carrollton, Mo., 95 mi., the latter says that the work has not been started and is not authorized so far as that company is concerned.

N. C., Denton.—Carolina & Yadkin River R. R. Co. contemplates an extension from Denton to Mount Gilead, N. C., 35 mi., to connect with the Norfolk Southern R. R. E. C. Deal, Greensboro, N. C., is V.-P. and Ch. Engr.

N. C., Greensboro.—Southern Railway has let contract to the Lane Construction Co. of Baltimore to grade for yard tracks, roundhouse, etc., near Greensboro, and work will soon begin.

N. C., Montezuma.—Linville River Railway has completed its extension from Linville Gap to Shulls Mills, 9 mi.

Okla., Ardmore.—Ardmore Ry. Co. will open bids possibly this month or early in Nov. for the construction of its proposed line from Ardmore to the Fox oil fields, 35 mi. through rolling country. Route not

definitely chosen, but survey in progress of line which will probably be built. I. M. Putnam is Gen. Mgr., Secy. and Contr.; address care Street Ry. Co. R. W. Patterson is Ch. Engr. Other officers are Edward Galt, Pres.; Wirt Franklin and S. A. Apple, V.-P.s; Roy M. Johnson, Treas.

Okla., Guthrie.—Oklahoma Ry. Co. is reported surveying for an extension out of Guthrie. G. W. Knox is V.-P. and Gen. Mgr. at Oklahoma City.

Tenn., Oneida.—The Tennessee Ry. has completed its extension from Charley Branch to Rosedale, 2 mi.

Tex., Houston.—Contract for the first section of the San Antonio, Gonzales & Houston Interurban Ry. Co.'s line from Houston 60 mi. west is reported let to J. H. Berryman & Co. Steve Holmes of Leesville, Tex., is Pres. and Ed Kennedy of Houston V.-P.

Tex., Rockport.—Rockport Development Assn. is working on plans for the construction of a railroad from Rockport to Lamar and Refugio, about 20 mi. Chas. C. Johnson is Pres. and E. Gordon Gibson, Secy.

Va., Rocky Gap.—Norfolk & Western Ry. is reported to have begun survey for an extension of its New River, Holston & Western Ry. to North Tazewell, 29 mi. J. E. Crawford, Roanoke, Va., is Ch. Engr.

W. Va., Fairmont.—The Pittsburgh & Lake Erie Ry. says there is nothing in the late report that it proposes an extension from near Connellsville, Pa., to Darnley and thence into West Virginia.

W. Va., Grafton.—Concerning the recent report that the Baltimore & Ohio R. R. would build a short coal mine branch from a point near Grafton, the company says that the plan is not sufficiently advanced to give particulars. R. N. Begien, Baltimore, is Ch. Engr.

W. Va., Moundsville.—Ben Franklin Coal Co. has begun construction of a railroad from its Panama Mine to the smelter tract.

W. Va., Moundsville.—Wheeling Traction Co. has applied for a change of franchise in Moundsville and proposes to build some additional tracks. W. B. Atwood, Wheeling, W. Va., is Gen. Supt.

### STREET RAILWAYS

Ga., Savannah.—Savannah Electric Co. is reported, contemplates building an extension of the Millhaven line to Port Wentworth, 4 mi. H. C. Foss is Mgr.

Ky., Henderson.—The city government has invited bids until Oct. 17 for a 20-year franchise to build a street railway on various streets. J. W. Johnson is Mayor.



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